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**NEBULA SCIENCE FICTION**

159 Crownpoint Road, Glasgow, S.E., Scotland

# NEBULA

## SCIENCE FICTION

Vol. 2

Editor: PETER HAMILTON

No. 3

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**PILOT'S HANDS** ... .. **William F. Temple** 74

*Certain markings on the Moon's surface have always been a mystery. No one could have imagined that they were also a menace...*

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*What strange urge forced Earthmen to organise every people in the Galaxy? And why were these peoples content to be organised?*

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All characters and events in these stories are entirely fictitious. Any resemblance to persons living or dead, is purely coincidental.

# Look here...

In my never-ending fight to give you something *different* and *better* in each edition of this magazine, I have encountered many difficulties which seemed quite insurmountable when I first ran across them.

Among these difficulties was how to obtain a steady flow of really first-rank story material; however, since NEBULA first appeared, I have raised my rates-to-authors several times and am now paying more for stories than any other British magazine—and consequently obtaining correspondingly better stories.

Such stories as "Pilot's Hands," for example, which was written specially for NEBULA by well-known William F. Temple. This story incorporates a fascinating new idea as to the true nature of the mysterious streaks radiating from a number of the craters on the Moon's surface and backs it with a suspenseful yet plausible plot and some fine character work.

Another author who has built up a fine reputation both here and in America for concentrating on the "human angle" in his stories is J. T. McIntosh who gives us "Divine Right" in this issue. I feel that this tale introduces quite a new and interesting twist and am sure you will enjoy it.

Several well-known authors are represented among the short stories but the two to whom I'd like to give special mention this time are Dave Gardner and Bob Silverberg. They are both new authors: Dave appears for his second time (apart from reprints) in any science fiction magazine with "Cold Storage"

(his first appearance was in NEBULA No. 3); while Bob, a young native of Brooklyn, makes his very first appearance in this issue of NEBULA. I predict they will go far if they can keep up this standard of writing. What is your opinion?

The issue is completed by the new four-colour reproduction of a fine cover-painting by much-requested Bob Clothier, the usual fan departments and two pages given over to a questionnaire conducted by the newly-formed "Space-Times" Research Bureau.

The Bureau feels that the time is ripe to conduct a survey of fandom as a whole, both in Britain and the United States. Who are the fans? How old are they? Just who does read SF? What do they read most—hard cover books or magazines? What IS their favourite magazine? (Ahem).

All these are questions which have been asked many times, but so far no one has ever come up with an answer based on a scientific survey of fandom and of SF readers in general. Now the Bureau hopes to produce the answers.

This is an ambitious scheme—it can only succeed with YOUR help. Will you please assist the Bureau by completing the questionnaire which appears on pages 129/130, and sending it to the address shown on the form?

A word or two about the questionnaire itself. It is long—that cannot be avoided if it is to take in all the facets of fandom. Some of the questions may seem

*Concluded on page 128*

## Divine Right

*What strange urge forced Earthmen to organise every people in the Galaxy? And why were these peoples content to be organised?*

*Illustrated by Martin Frew.*

FOR another day it was over. Men, women and children who had been quite incapable of trudging another step found energy and cheerfulness to chatter and laugh and shout as they pitched camp; some of the younger people even rushed about boisterously in the gay disorder, now that the decision to stop for the night was irrevocable.

The fact that the Owans still found the trek necessary, on their own world, proved that their ancestors had come from Earth once. It proved that the only possible form for intelligent life was humanoid. It also proved that there was a Supreme Being and that all the intelligent species of the galaxy were made in His own image.

That these theories were mutually exclusive didn't matter—among all this proof there must be a fact, a fact that led directly to the Divine Right that made Alec Hooton and Florence Gilbert, both born on Earth, the natural and inevitable leaders of this Owan rabble.

At any rate, that was one point of view. Among a few thous-

and million people in the galaxy who believed it was Florence Gilbert.

It must be Divine Right, too, that put the steely note of command in Alec's naturally soft, pleasant voice as he directed operations and nonchalantly, almost contemptuously, brought order out of chaos. It was Divine Right that kept Florence taut and erect beside him when by mere ordinary rights she should be dropping exhausted on the soft, warm ground. Divine Right was give-and-take.

There was another point of view on Divine Right. Among a few hundred thousand people in the galaxy who believed it was Alec Hooton.

The Owans cursed goodhumouredly under their breath, but did as they were told. They knew what had to be done, but that didn't make them do it without protest, without being nagged and bullied into it.

Alec took time off for a searching glance at Florence, who should have been at the other end of the line bearing her share in the task of getting the camp ready before the rain came. She didn't explain, but she didn't conceal the explanation. She just couldn't do it, yet. She wasn't going to gasp and stumble and lose her temper before the Owans. When she could do her job properly, she would do it.

Presently she decided she could, and moved down the line. Alec's stream of commands didn't falter, but his eyes followed her. She moved beautifully. Not with military precision, for the Universal Order Force wasn't built on that foundation, but with grace and ease and awe-inspiring confidence. That wasn't pretence; she really felt that confidence. Alec knew that tired as she was, sometimes forced as she had just been to lean and depend on him, she felt that confidence more than he did.

Shaw, who was variously the two Terrans' cook, assistant and liaison officer, came up to Alec, bowed down ludicrously by a box, pretending it was much heavier than it was. The name Shaw, like Owa, was only a Terran approximation. There were half-a-dozen vowels in the word Owa, but when Terrans said Owa the Owans knew what they meant. Shaw's name had a couple of quavers in the middle, something like Shawoweea said very quickly, but he answered to Shaw. Alec and Florence could talk like Owans when they liked, but they generally didn't. The grating Terran version of the Owese tongue helped: it was different, powerful, above all Terran.

"What do I do with this, Ironguts?" asked Shaw, a glint of humour in his eyes mocking his own self-pity. "Are you the doctor to-night or the Rōckwoman?"

It was Florence's turn to be wakened by the hypochondriacs, to soothe and treat the genuine cases and vituperate against the ever-optimistic malingerers.

"Put it under my hammock," said Alec. In Shaw's indifferent nod there was a hint that he had known it should have been Florence, and that Alec would say what he had.

"Shawoweea!" said Alec curtly. The Owan, turning away, jerked back, alert at Alec's lapse into perfect Owesa. Alec went on using it. "Don't be too smart," he said.

"No," replied Shaw, not quite at ease yet. "No, Amoyo," he added in his former tone, jauntily.

"That's what I mean," said Alec. Amoyo was the Owans' god. UOF men couldn't be blasphemous or profane about Amoyo; but of course Shaw could.

The Owans looked rather more human than they were. In their togas and smocks and kirtles they couldn't be definitely identified as non-Terran. But whatever the true history of the Owans was—Earthmen, despite their esoteric so-called proofs, really didn't know—they were not now sufficiently human to mate with humans, though they reproduced in the same way; they had a different repertoire of diseases, though when Terran and Owan *did* have the same illness the treatment was much the same; and the two races could not live on quite the same diet.

When Terrans and Owans stood naked together the differences were obvious. The seasonal trek and the absence of luxury kept Owans stringy and Owan legs thin. Owans were perceptibly pigeon-breasted; the lungs had to work a little harder and had gradually given the torso a prow—that is, if there had ever been a time when Owans hadn't had it. The internal organs were similar, but not the same nor in quite the same places. Having almost lost the plurality of breast, the Owan male made up for it with an apparent double belly, split down the middle. It wasn't really; the hollow was a restraining muscle. Owan women's breasts pointed distinctly outwards, one to the left and the other to the right. And in compensation the double belly

wasn't nearly as apparent. There were other differences, but these were the ones the eye caught first.

The climate would have enabled Owans to go naked most of the time. However, they had a curious shame of their bodies—quite different from any that had ever been current on Earth. They had no theoretical objection to nakedness, no private shame. They concealed their bodies and wanted and expected others to conceal theirs. When a rare individual happened to be pleased with his body, he showed it and nobody minded. That was when it was most like a Terran body.

All this had been true before the first Terran ship (in recorded history, at any rate) reached Owa. Which was a strong indication that the Owans had in fact been human once, and hated every sign of physical change to something else.

At first the Terrans had concealed their bodies too, sweltering in the Owan heat. But it wasn't necessary or even desirable. Terrans had the kind of bodies Owans admired and honoured and loved to see. When UOF men and women dressed for the climate it actually helped the Divine Right (which Terrans had already discovered elsewhere they possessed).

So Alec at one end of the line, wore blue shorts, sandals and nothing else. Often Owan eyes would look up and rest on his lean, smooth-skinned body. If there was anything of sex in that gaze it was sublimated. To the Owans Aicooton was the son of Amoyo, not the son of man.

Florence, at the other end of the line, wore white shorts, a silk scarf and sandals. The scarf went round the back of her neck and the two ends were tucked into her belt in front. Again, there was nothing of sex in the gaze of the Owan men. But, curiously, there was a hint of sensuality in the women's regard, like unattractive or old or prudish women looking at a half-naked glamour girl and admitting only in the intensity of their stare that they were condemning because they could not emulate. Except that the Owan women didn't condemn. They merely rated Florence lower than Alec, and would have given a thousand other reasons before coming to the real one.

Men and women, to the Owans Terrans were physical perfection. Owans loved them for their beauty.

It wasn't mentioned in Owan theology, which was makeshift and not very important to anyone, but if there had been an after-life for Owans, it wouldn't have been heaven as a reward—it would have been reincarnation in a Terran body.



Alec began to work his way along the line. He was beginning to enjoy the prickle of sweat all over him, because with the experience of six years on Owa he could feel the rain only half-an-hour away. He was anticipating the joy of the cool cascade, so thick and heavy that one could hardly breathe without swallowing some of it. Fourteen hours ago the water that would drop from the heavens had been ice. Not many hours after it fell as rain not far from blood heat, it would be ice again, perhaps for months.

Owa and Awee were twin worlds in a binary system. At least they had been twins once. But now Awee was parched and and dead and seared, and Owa was a restless, violently alive world of heat and cold. Awee spent most of its time interposing itself between Owa and both suns, casting a black, cold shadow across most of Owa's surface. It was before this shadow that the trek advanced. The Owa cycle was unvarying: nine months of eternal day in the northern hemisphere, then darkness and ice forcing everything warm-blooded south and still further south; then, after sixty nightless days of travel, the beginning of nine months of eternal day in the southern hemisphere.

This is over-simplified, of course. The Owan weather cycle, over-simplified, is quite complicated enough. Owans couldn't walk half round their world, which wasn't much smaller than Earth, in sixty days. In addition to the big trek, in which everyone had to take part more or less together, there were a lot of little treks, which families and groups and individuals did as it suited them. No Owan could ever stay more than three months in one spot. So no Owan owned anything he couldn't carry.

When UOF found Owa, this was the order of things. What UOF did about it, as usual, was virtually nothing. UOF came to rule, not to change. It helped the humanoid races it encountered, but not much; if necessary it introduced Terran ideas of justice, but didn't insist on them; all it really did was insist on the second word in its title, Order, and defined Order as the state of not bothering Earth too much.

Alec and Florence were in charge of, at the moment, two hundred Owans. They weren't forced on the natives—the Owans wanted them, begged for them. Soon there would be three hundred and fifty in the party, when another group joined them. Then there would be five hundred—eight hundred—two thousand at last, still under two UOF agents. No, UOF

didn't control Owa by force of numbers. That is where Divine Right came in.

A young girl raised her arm feebly as Alec approached. She was one of the near-Terran types, and constantly celebrated it by wearing above the waist only a coarse scarf in imitation of Florence. But she couldn't be as satisfied with the rest of herself, for she wore a kirtle that dropped past her knees.

"I am going to die to-night, Aicooton," she announced.

"I forbid it," said Alec briefly and passed on. Someone tittered. She was tired, but she wouldn't die. The Owans were geared to the seasonal trek. One out of the original two hundred would die on the way, perhaps; no more. Owans didn't die on the trek. If they were going to die, they did so in the agricultural season, when they were soft and stuffing themselves with food they had not to carry. There would be no births on the way, either. They would come during the farming season.

Alec stopped suddenly. He said patiently: "Onao, what is going to happen to the tent when the rain starts?"

Onao and his wife and children looked at the tent with intelligent, experienced eyes. "It will fall down," said Onao, proud to have the right to answer Alec's question.

"Then why put it up like that?"

"Because it was much easier, and we are tired," explained Onao. But he didn't sound so happy now. It was becoming obvious that they would have to do something about the tent, not in the dim future after an hour or so of rain, but now. Alec waited grimly. "Truly it is said," muttered Onao, as he pulled the ropes tighter, "that Earthmen are hard and cold and steely and unsympathetic and..."

There were seventy-four adjectives in the ritual complaint. Alec didn't wait for the other sixty-nine. But there was something curious about the incident; Onao seemed to resent orders which most Owans took for granted, orders to be grumbled at and half obeyed without any real vexation or disagreement.

Florence was also working her way along the line, towards Alec. He wanted to look up at her. Owa wasn't a beautiful world. It was too flat, too featureless, too devoid of Terran variety. There was plenty of vegetation, but it was merely different kinds of moss and frozen or slimy shrub, hardly any of it

edible and none of it attractive to the eye. The animals, harmless and dangerous, were uniformly small, alien, and unlovely, also for the most part inedible. The rocks and stones were bare and flat and dead, rounded by the rains and broken up by the ice. The Owans, too, were ugly. If they had any pride, they might have made something of themselves. But having no pride, they could have no beauty.

Only Terrans in the human or humanoid communities so far discovered in the galaxy, or at least so far incorporated into the UOF scheme of things, had pride. Thus Florence's was the only beauty from horizon to horizon. Terran health alone would have been enough to make her the natural resting-point for Alec's eyes. It wasn't, in her case, the seductiveness of a woman who knew she was seductive. It was the satisfaction of being Terran, and contentment in being female, and a certain mild pleasure in being beautiful.

But Alec hadn't time to look at her yet, except for a brief glance to make sure they would have time to complete the inspection before the rain. The cooking had started already, the roasting of the few animals which had been killed during the day to eke out the wheaten cakes and Owan rice which were the main items of diet on the trek. There would be no fire once the sky began to unload its burden.

There was a scream and a child of about five Earth years ran out and clasped his legs. "Aicooton!" he cried. "Don't let her beat me!" There were no real tears, no real fears. Owan mothers were too placid to be cruel.

Alec looked up in surprise that Eoa had exerted herself to the extent of beating him. "What has he done?" he asked the woman.

"I had to beat him, Ironman," said Eoa virtuously. "He said Ois was as good as you."

Ois was the nearest most Owans could get to Florence's name, Alec reflected. Two days back Florence had saved the child's life. She had dragged him out of a water-hole and shot three bloodsuckers off his legs, then two she collected herself in the course of the rescue. Naturally after feeling the agonising grip of three creatures that were nothing but teeth and bloodsac, and *knowing* nothing could save him from them, the child adored the wonderful creature who did. Naturally, too, though Aicooton was strong and brave and magnificent, the child decided that Ois must be even stronger and braver and more magnificent.

"Don't beat him for that, Eoa," Alec told the woman. "Other things, yes, if you like."

"But you are the leader."

"If I were sick, or died, who would be the leader?"

"Ois, but you are never sick and you cannot die."

"I could be sick, Eoa, and I can die. When I am away, who is the leader?"

"Ois." She was puzzled, and realising the futility of it, Alec moved on. The woman had nothing against Florence, who was an Earthgirl and therefore supreme. It was no surprise that Florence should perform a miracle and save the child when everyone knew the child was past saving. But Aicooton was the leader. Aicooton was the Earthman. Ois had saved the child only because Aicooton wasn't there to do it.

That and more. And behind it all, unadmitted, was jealousy of Florence. Florence was what Eoa wished she were...

Alec and Florence met at the middle of the camp, and the inspection and their work were over for the night. Perhaps.

Florence didn't look tired, but as she met Alec she didn't try to conceal the fatigue in her face, behind the unyielding expression.

"Like me to carry you back?" he asked in English.

She stiffened at the suggestion.

"Well, why not?" he argued.

"You know why not. A Terran show weakness?"

Alec grunted. "I keep telling you you overdo it, Flo. Look, last night you were lecturing me about Divine Right, what does it matter whether you show weakness or not?" He stressed the words 'show weakness' rather mockingly.

She started out impatiently for the head of the camp. "You know it's not like that," she said as he fell in beside her. "There's no Divine Right in the sense that we have the right to rule whatever we like. No, we're top dogs in the galaxy so far because we've never found a race better fitted to rule."

She looked up at him and went on quickly, irritated by the half smile on his lips: "Don't you see, a man isn't a natural leader because he's an Earthman. But Earthmen are the natural leaders."

"And things are equal to the same thing but not to each

other," murmured Alec. "Also because Florence Gilbert is a natural leader I can't pick her up and carry her."

"There's none so blind," said Florence bitterly, "as those who won't see."

"I must be a terrible disappointment to you. And since we haven't done half the trek you'll have to put up with me for weeks yet."

When women gave up something, Alec reflected, they really gave it up. When they decided to be cruel, they could be much crueller than men. And when, like Florence, they decided to give up tenderness, weakness, femininity and frivolity they could become, at twenty-one or so, more sour and stiff and icy and spartan and disciplinarian than the old British militarists on whom they were no doubt modelling themselves. Inferiority was at the root of it, of course; doubt that she could be steely and decisive made Florence so much more determined to be steely and decisive.

Shaw, for a wonder, had their tent up. But a quick inspection showed Alec that it would soon have fallen down again. What Shaw and all Owans lacked, in one word, was responsibility. Shaw knew that Alec was going to check on his work afterwards—why should it be good? Deviously, the Owans did jobs in such a way that Terrans always had to check after them. Therefore it didn't matter how the work was done. The Terrans would see that it was all right.

They squatted before the tent and ate supper; then only a little later than Alec had calculated, the rain started. There was a patter, and then a dull roar, and in a short time the ears were ignoring the low murmur of the water drumming into the soil. For a few moments the soil took it; then it could take no more, and the ground everywhere was awash.

No one in the camp moved to go inside the tents. The Owans were a clean people, and the rains were the only means of washing on the trek. Body and clothes were washed once a day, but so thoroughly that no grime was left below fingernails, no sweat between the toes. It wasn't necessary to strip. The warm water soaked through everything but the waterproof material of the tents, and the pressure was such that even dried paint would have been gradually removed from human skin.

Visibility was only about twenty yards. The rain came

down straight, steadily, implacably. Alec had a morsel of wheaten cake in his hand when it started; the cake crumbled, fell in large crumbs on his leg and rolled to the ground, dividing and subdividing until it was swept away in a thin brown cloud. He looked at Florence, and in the ten seconds since the rain began her clothes had saturated to thin tissue that only clouded the clear brown of her skin. She didn't see him looking at her, for she had closed her eyes and was leaning back to let the rain run down her.

But her eyes flicked open at the shout: "Rise, Owans, and throw off the tyrants! Who are the Terrans that they should say 'jump' and you jump? Tell them..."

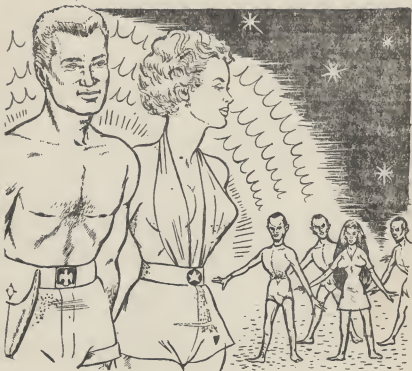
It was almost incoherent, and even before they saw who was shouting they knew what had happened. Someone had packed a bottle of the fiery Owan spirit by mistake—it must have been by mistake. No one would carry eora on the trek. The trek was not the time for drinking, and certainly not the time to carry things one could do without. But having brought it he had, inevitably, drunk it.

It was Onao. He staggered towards Alec and Florence, holding the empty bottle in his hand, shouting, the rain pouring down him. The Owans outside their tents didn't move. If the leaders weren't there they would have to bear Onao down and tie him up until the effects of the eora had worn off. But it wouldn't be easy, for the spirit was a powerful stimulant. Much better to stay still, do nothing, and let Aicooton and Ois handle him. They watched, interested. Others came running to watch, too.

"Dirty swine of Terrans," bellowed Onao, making a terrible hash of the delicate vowels. "Whose tent is it? Mine. I can put it up as I like, can't I? Why should I be a slave?"

He rushed at Alec, who was only just getting up. Alec was too contemptuous of him. He parried Onao's clumsy right-hand blow easily enough and jabbed fiercely at his chest, but he was too late to do anything about the wild swing of Onao's left hand, still holding the empty bottle. It hit Alec on the side of the neck and softened him up for a hammer blow on the top of the head from Onao's clenched fist.

Alec went down. He wasn't completely out and he hadn't even lost interest in the proceedings. He was still quite interested as Onao turned on Florence. He just couldn't move, that was all.



Florence kicked, Florence jabbed with her left, Florence drove with her right, Florence lifted her knee. As an exhibition it was perfect. From the start Onao had no free-will. Each action of Florence's bent him into position for the next. Florence's combat teachers would have been proud of her. The Owans burst into spontaneous applause. This was what they had expected when they came running.

Alec rose easily, pretending he had only gone down to give Florence had a chance, and picked up the unconscious Onao. He took him back to his tent, made sure there was no more eora, and returned to Florence.

"That won't do UOF standing around here any good," said Florence bitterly.

"Won't it? I thought you did quite well."

"I mean you, fool! You showed that someone has only to get drunk and come at you with a bottle and you let yourself be knocked out. That—"

"Think that isn't going to do the Divine Right any good?" Alec grinned. "Flo, tomorrow when I say 'jump' they'll still jump. You know that, don't you?"

She nodded unwillingly. "But..."

"But the Divine Right has taken a beating all the same?"

She jumped angrily at that. "Don't sneer at the Divine Right like that!" she exclaimed. She was going to say more, but suddenly she whirled and dived into the tent. Alec pursed his lips thoughtfully as he realised why.

She had been going to cry. The Divine Right was that important to her.

In the morning when they struck camp it was decidedly chill. The shadow of Awee was not far behind them. In the sunlight, the warm air rose; cold air rolled in from the darkland cut off from light and heat by Awee.

Owans knew from the feel of the air when and where and how fast to move. The Terrans, being Terrans, liked to explain it to themselves in a little more detail. Explanation or no explanation, the routine was the same: a day's march right across the strip of day, from the shadow of Awee to the edge of dusk, the cool of tangential sunbeams which brought the rains. Sleep and rest, and all the time Awee advanced, until at last it forced them on again. Always they were sandwiched between the biting cold of eclipse and the less sharply defined cold of the twilight zone—trapped, but never caught. When they got on the move they knew that only a mile or two behind them the ground was frozen and nothing moved. There were migratory animals which advanced through the strip of day like the Owans, but most of Owa's natives were hibernatory. The plants, bloodsuckers, stingers, centipedes—all the least pleasant of Owa's unpleasant native species—would sleep where they were frozen until light and heat returned.

Owa's heat-and-cold cycle wasn't confined to the one eccentricity that made the trek necessary. Warmth would return to the spot the Owans were leaving long before they did. The hibernatory animals would have a whole season undisturbed by a single migratory creature. For the second warm season was of no use to an animal that could not live through the Owan night. It was the season of the returning second sun, and it would grow from nothing and shrink to nothing. There was no way to that



life-giving warmth, while it was there, save through ice and darkness.

They were only an hour on the way, straggled out along a couple of miles already, with Alec at the rear for the day, when he heard a shout up the line. Then everyone was turning, shouting and pointing back the way they had come.

This was obviously the event of the day. The Earthmen, of course, were not limited to the strip of day—they could fly through the night in their machines. But there were not many of these machines on Owa, and having seen one when Aicooton and Ois came in it to start the trek, this group didn't expect to see another until they reached their destination. Aicooton could summon it, they knew, by a thing called radio—*had* he? Was there some emergency? Or (fear and anxiety) were Aicooton and Ois going to leave them?

The helicopter grew, swooped on to the head of the column, then rose again and hopped back to the end. Alec left the trail to meet it.

There was only the pilot in the helicopter, a brunette in slacks and the peaked cap of the UOF. Used to the comparative luxury of Owan HQ she was not only smoking a cigarette, but chewing gum at the same time.

"Major Ewan wants you," she told him briefly. "You're not recalled. He only wants to see you. You'll be back in a few hours."

"Right. Take me up to the top of the column, will you?"

She nodded. Alec didn't even get into the cabin. He stood on the step as the helicopter drew a neat parabola that ended only ten yards from Florence. The girl pilot watched lazily as he stopped Florence and they talked. She was still looking over her shoulder as she took off, with Alec in the back.

"Does that leave Tootsie in charge of the party?" she asked.

"Yes."

"Why did she join the UOF instead of going on the films?"

"If it comes to that, why did you?"

"No talent," said the pilot meaningly. "Something one can hardly say about Tootsie, surely?"

Alec was unreasonably annoyed. "She doesn't have that kind of talent either," he said stiffly.

The pilot spun in her seat, surprised. "You'd never think it to look at her in that outfit," she remarked.

That was the end of the conversation. Almost at once the

helicopter slid abruptly into the shadow of Awee and all was blackness. Alec shivered, imagining he could feel the cold outside. He couldn't; the helicopter was sealed. But Terrans who had made even one trek got some of the native Owan's feeling of chill even thinking about darkland.

There was only a tiny UOF foothold on Owa so far; one Terran for every thousand Owans—four hundred Terrans spread out across a planet not a great deal smaller than Earth. The four hundred, too, was all-inclusive. The pilot was included in the four hundred, and so were the girl secretaries, typists and clerks at the one permanent building on the planet, the UOF HQ near the north pole.

Nevertheless, arriving at HQ was like returning to Earth. It was in darkland at the moment, of course; the helicopter dropped on a floodlit runway and ran into the HQ building itself. To the Owans it was a seasonal miracle that when they and the day returned to the neighbourhood of the Terran building, the UOF staff was always alive.

Alec looked round with interest as the pilot led him through the building. It wasn't new to him, but the change from the Owan to the Terran way was always startling. Here, people wore civilised clothes, everyone had something to do and was doing it, and the atmosphere of the place sizzled with high-power efficiency and alertness. All these people had jobs, and could be left to do them, and *would* do them . . .

Alec for a moment ran a parallel mental picture. You told an Owan what to do, you and he reached agreement that it had to be done, you started him on the job and then left him to continue it. You came back to see if he had done anything, and if he hadn't you stood grimly and watched him do it. When you had finally got him to do the job, you checked over every section of it to see it was done.

Here—he was the only stranger, the only person not dressed, the only break in routine, yet the HQ staff, men and women both, had time only for one curious glance at him and then were back at whatever they were doing.

Then he was through the bustle and in Major Ewan's room. It was a tiny room: the modest HQ building had cost more to build than the biggest, most pretentious edifice on Earth. The

major was folded into a corner behind a desk, out of the way. He was a big man to get into so small a space, tall and spare, with the heavy tan of someone who spent a lot of time under Owa's two suns, and the enquiring expression of a man who was in the UOF for the interesting facts and situations and experiences he could get out of it.

"Well, Alec?" he said. Formality and discipline had to be low in the UOF. Where so many had to act so often on their own responsibility it would have been stupid to insist on forms that dragged down a man's idea of his own importance.

"Well, Major," said Alec agreeably, not biting.

Major Ewan smiled faintly. "If you keep on leaving the first move to the other fellow, Alec," he observed, "sooner or later someone will be rushed into promoting you in charge of Owa."

The major couldn't be rushed into anything. Alec knew his casual remark was a deliberate broad hint that he was marked out for advancement, and found it hard not to grin all over his face. Instead he said carefully: "That's the nicest thing anyone said to me for a long time, major."

"But that's not why I wanted to see you. That's just incidental." The major paused and went on very casually: "How is Florence Gilbert getting on?"

Alec stroked his chin thoughtfully. "If I'm to spy on my own partner," he said, "I think I should know why."

"Fair," the major conceded. "Why? Because Florence Gilbert is marked out for big things. She could be very important to the UOF."

Alec was surprised and didn't try to hide it. "Is she the daughter of the king of England, perhaps?" he asked bluntly. "Or under the sponsorship of some political boss?"

"Then she isn't doing so well," the major guessed. "You think she must have influence. No, Alec, it isn't that. The plans for her future aren't based on who's behind her, but what she is. Or what we think she will be. Well?"

"She's all right," said Alec guardedly.

The major's eyes became keener. "Listen, Alec," he said. "I'm not going to force you to talk. You want to know things before you do. That's natural. Well, let's put it this way, shall we? You have a future in the UOF—but it's in the open. If Florence is going to count in the UOF, it won't be in the open. Got that? In fact, Florence Gilbert isn't her real name. She's

with you for a while, but she and you are taking different roads, and the less you know about her road the better. Well?"

"I see," said Alec. "That's different. Isn't it a round-about sort of way to train her? Oh well, that's none of my business. You want to know how she's doing. She's wonderful. A damn fine UOF lieutenant. Twice as good as I was at her age. She's got guts, brains—"

The major was frowning. "That's not the impression you gave at first."

"She's all right," said Alec. "But its' high time she grew up! She lectures me every night about the Divine Right."

"Ah." The major smiled. "I think I'm getting the picture. Anything else?"

"No. That's all. I could say a lot more on the same lines, but I don't think there's really anything else. What do I tell her when she wants to know why you wanted me?"

"Say I said we'd pick you up in thirty-five days from now."

"I didn't say she's dumb. She'll know—"

The major shrugged his shoulders. "I'm not giving you instructions, Alec," he said gently. "Say nothing or tell her every word we said. In thirty-five days she moves out of your ken, and that's another story."

"Whether she's learned anything or not?"

"Yes," said the major bluntly. "But let's hope she's learned something. That was why we put her with you."

On the way back the brunette pilot, who seemed more good-natured than she had at first appeared, apologised for any aspersions she had cast. She hadn't meant to cast aspersions, she remarked, only make conversation. After that she and Alec became quite friendly. She put the helicopter on automatic.

At the last minute she told him her name, in case he should ever want to look her up again. He promptly forgot it, but it didn't matter. Among four hundred Terrans a girl like that could never be really effectively concealed.

He looked at Florence with more interest as he joined her at the head of the column. He had waved goodbye to the brunette; that meant he was stuck with Florence for the next month. There would be no more summonses to Major Ewan.

Florence was tallish and blonde. She must be at least twen-

ty, but she still had the impatience of a teen-ager. He allowed his mind to wander over the things that might make her important to UOF. He didn't come up with anything.

"Well?" she said.

"Anything happen?"

"We did thirty miles. That's all. How about you?"

"Oh, yes," said Alec vaguely.

She shrugged. "I'm not supposed to know about it, then."

"Well—no. I could make up a story that would probably satisfy you, but that would be rather an insult, Flo."

"Don't call me Flo!" she flared.

"Then what? Jean, Mary, Betty, Helen?"

She calmed down and looked at him keenly. "So they told you about that. Did they tell you my real name?"

"No. I don't want to know it either."

"Why the secrecy—about what I'm doing next, why I'm here, what I'm supposed to be doing?"

Alec hesitated. "I'll tell you what it could be," he said at last. "Why you're with me on this trek, I mean. You know the UOF system. Where possible a man's allowed to go on under the same old misapprehension, making the same old mistake, until at last he realises it's a mistake. Then—"

"What mistake am I making?" Florence demanded.

Alec smiled blandly down at her. "You tell me," he said.

Florence strode up to the head of the column, deciding it was no use speaking to him. Alec grinned and dropped back to the rear.

There was a curious incident as he did so. Nothing was done or said, but it was an incident all the same, and Alec duly noted it.

Something drew up his gaze and he saw Onao staring up the column at Florence. Nothing else. There was nothing in Onao's face, not dislike nor resentment nor shame nor admiration. And that was odd, for when an Owan looked as intently as that at an Earthman or woman, there was always one or other of these emotions.

Yet Alec, who wasn't unduly sensitive to atmosphere, and certainly not psychic, found that everything seemed to stop except Onao and Florence. Everything else faded into shades of grey and only once Onao, big and clumsy, and Florence, neat and highly-polished, showed vividly in sharp colour. It seemed incredible that Florence should be unaware of Onao.

Then suddenly she turned and looked back. Keenly, carefully, she picked out Onao, noting him as Alec had done. Abruptly the tension snapped. Onao was uncomfortable, Florence puzzled, Alec thoughtful. Five seconds passed, then Florence moved on.

What exactly it all meant wasn't entirely clear. But the general lines were obvious. Onao was one of the rare Owans who bore malice. He didn't like Terrans and more particularly he didn't like Florence. Onao would bear watching.

And having decided to watch Onao, Alec quite contentedly allowed his thoughts to pass to something else.

The next day they duly met up with another party making the trek. There were no Terrans with them; they had just had to get along as best they could until they joined Alec's party. When they went on again there were three hundred and fifty Owans in the caravan, and it straggled out over four miles. It wasn't worth the effort of trying to get the Owans to close up. Alec's and Florence's supervision was henceforth spread more thinly.

Two days later the convoy grew to close on five hundred. And the day after that was an easy day, when not so much ground had to be covered.

Alec knew he might be making a mistake: as he had told Florence, UOF men and women were trained in responsibility by being given it, and were seldom told that what they were doing was wrong. Except in matters affecting UOF relations with Owans, Alec would normally have left Florence to stew in her own juice.

But stalemate couldn't be good, he reasoned. So he took her into the plain, and when they were a mile from the camp there was not one chance in a million of any Owan on a rest day wandering that far after him.

"Well?" she demanded.

"Would you like to shake hands Flo?" he asked.

She frowned. "What for?"

"I'm giving you a choice," said Alec agreeably. "Either shake hands or I'll beat you up." She stiffened angrily.

"Let's have it one way or the other," went on Alec. "We are not working together. We never did. We don't like each other. We never tried to like each other. All right, let's make

up our minds and be friends or enemies. Shake hands and try to get on. Or I'll show you who's boss and you can hate me."

"All right," she said coolly. "Beat me up."

So he had guessed wrong. He had counted on the best in her breaking through at that appeal.

"Never mind," he said. "You can hate me without the beating up."

She drove her fist in his ribs. His blow in return was sledgehammer logic. She couldn't possibly hurt him as much as he could hurt her. He wasn't fighting her, merely giving her as much punishment as she was prepared to take. He quite believed that it might really do her good.

But it was soon obvious that she was prepared to take much more than was good for her. There are levels of courage and determination in combat. The small boy beats the bully when he is prepared to take a lot more than the bully. However, Florence wasn't going to beat Alec, whatever she thought. She was merely forcing him to be brutal when he had only intended to be salutary.

He stepped back. "That's enough," he said. "No one ever said you were a coward, Flo. What are you trying to prove?"

He could feel her fury sizzling from her. Her hair hung over one eye, her clothes were disarrayed—and her clothes were such that they couldn't be disarrayed and still decent. But she didn't care. She was nothing but fury.

And suddenly Alec knew why she was important.

He stepped forward and grasped her arms firmly, holding them at her sides. "What's it like to be angry, Flo?" he asked quietly. "Have a good look and see. Go into all the details of how it feels to be in a rage and what you'd like to do to me."

She couldn't help the corners of her mouth twisting up. She tried to keep the anger in place, but it was too late.

"I may as well admit it," she said as they strolled back. "I'm proud. You know that. And I'm not really up to this job. I'm not as good as you. I don't have the temperament. This is the first time in my life I ever felt I was failing in anything, and I don't like it."

When Florence let down the barriers it was almost embarrassing.

"You really don't know what's special about you?" he asked curiously.

She shook her head. "They told you, though?"

"No, but I know."

"Oh. And that's why I'm here?"

"No. It's got nothing to do with why you're here. Look, Flo, don't let's talk around this. You could dig what you want to know out of me, no doubt. But it would be much better for you to find out for yourself."

"What's so special about something you find out for yourself?"

"You know how true it is."

"I'd believe you."

"That's not enough. Circumstances would arise where you would decide I was wrong. Or not quite right. Or that I'd been working on wrong assumptions. Reach your own conclusions. They're the only ones that are any good to you."

Florence frowned, unconvinced. "And that really has nothing to do with what's special about me," she murmured. "What *could* be special about me?"

"You've got a tail," Alec told her casually—so casually that she turned, startled, and looked.

They nearly had another fight.

The convoy grew and grew. Alec noticed that Onao was trying to hide himself in the crowd, so that Florence and Alec would forget his very existence. This was interesting. Alec spoke to Florence about it, but though they were getting along together much better now, she was short about the warning.

"I know all about Onao," she said coolly, "and exactly how dangerous he is."

So that was that. Perhaps she did. Alec doubted it. It didn't matter except that he had to pay a little more attention to Onao than he would have done if he had been satisfied that Florence understood the position.

Florence no longer talked about the Divine Right as such. Once she remarked, puzzled, that the Owans were very nearly as intelligent as Terrans when you considered it. On another occasion, when Onao was mentioned, she observed that as far as any kind of crime was concerned, the Owans were a much more moral, mentally stable race than Earthmen. Of fourteen hundred people making the trek, daily ordered about by her and Alec, only one bore malice. Another time she commented on what the



UOF had done and was doing for the Owans, and all the other races the UOF had found in the galaxy.

Yes, Alec saw to it that she had all the clues. But she refused to see what the Divine Right *was*. She didn't talk about it, but she still believed in it.

March and rest, march and rest. Florence ceased being tired in the evenings. From the Terran point of view she lost some of her beauty. Alec didn't consider it a loss of beauty, but it had been a long time since Alec had been on Earth.

There came a day when, even when they climbed one of the half-hearted hills of Owa, they were unable to see the shadow of Awee behind them. It would be not hours but days before the shadow reached the spot where they were camping. The Owans were becoming reluctant to move on, knowing they could wait for a day or two at least before the approaching chill drove them forward.

But Alec kept them moving, for they hadn't reached agricultural land yet. When they did, the Owans would immediately sow the seed they carried, wait and collect the crop just before the shadow of Awee caught up with them again and forced them on to the region of the second crop. Farming was easy on Owa. There was eternal light and heat and plenty of water; hardly any tending of crops was needed, but the timing had to be just right.

The rains had become irregular now that the twenty-four-hour cycle was broken. Sometimes it rained twice in a day; sometimes it didn't rain at all.

Alec didn't know what his next job would be. Perhaps he would be sent back to get the Owans somewhere started on permanent building in the southern hemisphere. But that was an old story—the Terran idea that the Owans must want to be independent of their capricious climate and the Owans' acceptance of the trek as quite inevitable. Merely to build houses, of course, would not be enough. All buildings would have to be sealed like the UOF HQ in the other hemisphere, with an efficient heating system, completely self-contained.

The convoy reached the fields at last, and the nomads immediately became farmers. From here on the Owans could be left to themselves. The timing was right. It was on the next day that the brunette helicopter pilot was due back to pick up Alec and Florence and take them back to HQ.

And Onao duly made his effort.

Alec was out somewhere, Florence didn't know where. The camp was now so big that he could be miles away and still in it. Onao came running to Florence's tent and gasped that his wife had broken her leg out in the plain and was dying. It was a typical Owan subterfuge, as full of holes as a fishing net.

Florence looked up at him, unmoved. "You are lying, Onao," she said with complete conviction.

"No, Steelwoman," Onao insisted hoarsely. "I am telling the truth."

The unfortunate thing was that if he did happen to be telling the truth however unlikely that might be, or some form of the truth, which was quite possible, his manner would be exactly the same.

"When people break their legs," she observed dispassionately, "they don't die."

"She is bleeding to death."

"Then why didn't you stop it? And what is she doing outside the camp?"

"She left some things buried when we were here before. She was looking for the place among the rocks."

That was more reasonable. The Owans did do that. It would do the Divine Right no good if a UOF agent refused to move and it turned out she should have moved, but very little harm if she investigated a red herring. Ninety-five per cent convinced that Onao, in his transparent way, was trying to operate some childish trap for her, she decided to go with him. There was curiosity, too—she wanted to know what the trap was. And supreme confidence that it could not be sprung on her.

"Shaw!" she shouted, and kept her eyes on Onao's face. Curiously enough, he didn't look perturbed when Shaw appeared, nor even when Florence said: "Get the healing box, Shaw. We're going to look for a woman with a broken leg."

Shaw grumbled, and Onao danced with impatience. Florence was puzzled. Taking Shaw along was quite unnecessary. If Onao was armed, it could only be with a knife. Even without her own hunting knife and the gun at her belt, without Shaw, she would have been confident of her ability to handle him when she was prepared for an attack. Nevertheless, to make even more certain she went into the tent while Shaw went for the medicine box and left a brief note for Alec.

Still puzzled, she followed Onao, Shaw at her heels. If there were caves, trees, narrow passes, steep rock faces, sudden

drops, she might be able to understand Onao's apparent hope to catch her off guard. But there was nothing of that sort. They were striking away from the camp into a region of jagged, broken rocks and stones, but there would still hardly have been room for a dog to hide.

Or if Onao had been able to find other rebels there might be some point in the manoeuvre. But if so, why not strike her down while she slept? There was no guard. And anyway, if anyone were to rush at them across the plain, she could pick them off at her leisure with her gun.

No, one couldn't inject sense into it—unless one went to the rather fantastic length of assuming Onao spoke the truth.

"I can see for miles, Onao," she said impatiently, "and I do not see your wife."

Onao pointed, without speaking. Sure enough, they were coming to a slight hollow—the only place anyone could be, if there was anyone else nearer than the camp.

Shaw kept up a constant muttering grumble at having to carry the medicine box so far. Less experienced, Florence might have taken it from him, preferring the slight weight of the box to the eternal complaint. But she knew now that no Owan would do anything without that same grumble, and that for him it served much the same purpose as singing at work might for an Earthman. It made the box lighter to carry.

They descended into the hollow, a mere depression in the plain. Onao was in front, kicking at the stones clumsily.

Suddenly there was a roar and a flash behind them. Florence spun round. For a moment she thought there had been another roar and a flash. But as she fell she realised Onao had slugged her behind the ear.

When consciousness returned she did what investigation she could before she even attempted to see anything. She was lying on her side with her wrists bound behind her. Her ankles were bound too, with the cord passed round her thighs so that her legs were drawn up under her. She was helpless.

It was obvious, now, what Onao's trap had been. There were some little fog-bombs in the stores, used in keeping the convoy together in the occasional heavy mists. Onao had stolen one of these and hidden it carefully with a trip wire to detonate it. Then he brought Florence along, casually set the bomb and

walked on. Tensed, ready, waiting for the explosion, he had leapt back and slugged Florence the instant she whirled to see what the noise was. It was simple, neat and it must have been sound because it had worked.

Florence wasted only a few seconds on self-condemnation. It was an old, sad story. The man who crippled himself doing a stunt didn't mean to cripple himself, of course. And she, now at Onao's mercy hadn't meant that to happen either. It had all been unnecessary—but such things always were, and there was no excuse, afterwards. Nor was there much point in cursing her own stupidity.

Since there was no more to be learned without opening her eyes, Florence opened them. She had meant to open them only a crack, but as Onao was squatting on his heels watching her, even that gave her away.

He was elated. "You see, Earthwoman?" he observed happily. "You are not as clever as you thought."

The fact that Florence had been expecting something like this to happen, and it still happened, only emphasised the truth of Onao's remark. She said nothing.

Onao showed no sign of hate—only delight in his supreme cleverness. Florence raised her head—almost all she could do. A few yards away Shaw lay huddled. Blood was gushing from his neck. He would complain no more about carrying medicine boxes. Onao must have moved fast. He had known, of course, that he had to deal with Florence first. Probably he had been on the slow-moving, slow-thinking Shaw before Shaw realised there was anything wrong.

"You don't know the rest of it," said Onao gleefully. "Listen. I sent Aicooton the other way looking for you. He could not see why I should lie to him...like you, he is a fool. Then I brought you here. You think Aicooton is reading your note? Look."

He held up the note she had left. Florence thought. Yes, she had let him out of her sight for a moment. He must have decided beforehand that she would leave a note, and got it from her tent so rapidly that she never suspected that he could have removed it.

"Do you know what will happen, Earthwoman?" Onao demanded. "You see how I have tied you. There are rags to prevent the cords from chafing. There will be no sign that you were tied. You will be dead, so you will not be able to tell your

story. You will be found strangled, scratched and torn and naked. Under your fingernails will be blood, and it will be Aicootons' blood. I got some of it from a bloodsucker he cut off his leg two days ago and left lying..."

Dazed, Florence heard most of her ideas about Onao collapse. Alec had fallen the day before and scratched his face—it looked as if chance had helped Onao a lot, but she knew that was only the mark of good, successful planning—even brilliant planning. It was already clear that an Owan could trap her and murder her at his leisure—was it even possible that an Owan could murder her, outsmart Alec and the rest of the UOF, and get away with it?

Onao could probably prevent Alec from looking for her, or at least finding her, that night. The next day the helicopter would arrive, her body would be found, surrounded by clues leading to Alec, and he would be unable to prove he could not have killed her and Shaw.

She even ceased to think of her own fate in the wonder of it. It was a well-conceived, well-executed scheme, even if the UOF scientists found out, as they surely would, that the blood under her fingernails had not dried there. UOF justice was justice. There might always be too much doubt for them to convict Alec, but there might also quite easily be enough for them to be unable to touch Onao.

Owans could plan. They could be successful criminals. That meant . . .

Her attention came back to Onao because he had taken her neck in his hands. But he released her at once.

"No," he said. "You must bleed, and that must be before you die." And he swept up a jagged rock, bent over her and scraped it savagely down her side, across her shoulders. She didn't make a sound.

But there was a sound, and the rock dropped on her leg. Onao was nursing a broken hand.

"Sorry, Florence," said Alec, as he scrambled nearer, "but I was creeping up on him in case he saw me and took it into his head to knife you. No, Onao, it's too late now. Drop your knife and untie Florence."

Onao dropped the knife, but didn't untie Florence. He was staring at his bleeding hand and wondering miserably what was going to happen to him. Alec had to untie Florence himself.

Her scratches weren't serious. Onao hadn't had time to get properly started.

"Couldn't you have been a little earlier," she said, stretching herself, "and saved Shaw?" But at once she regretted that and said: "Sorry, Alec. I didn't mean that."

"I wasn't close enough," said Alec. "I saw what was happening, but if I'd shot then Onao might have decided to kill you while he could. Anyway, I'd have been too late to do anything for Shaw. He was down before the smoke cleared. Can you walk?"

"Of course I can walk. I'm not hurt."

"Oh, well," said Alec. "If you say so." He prodded Onao with his gun. "Come on, Onao. It wasn't such a good try, was it?"

But Florence, talking in English, which Onao couldn't understand, didn't agree. "He could have got away with it," she said as they walked back to the camp.

"I doubt it."

"But..."

"Oh, I told you you underrated them. It's not your fault. They do their best to make you do that. Not the rare bad lot like Onao—all the Owans. And other humanoids on other worlds."

Florence stared at Onao's bowed back ahead of them: "*That's* what you meant," she murmured. "Of course. These humanoid peoples *have* brains, they *can* do things—if they can't get us to do them for them."

Alec smiled grimly. "That's it. That's the real explanation of your Divine Right."

"What—they give us it?"

"They give us it and we take it. You know how human social organisations work, back on Earth? There are always boring, petty jobs that no one wants to do. So they appoint someone to be secretary or business manager or administrator or match secretary, and he goes away happily and does them. The Owans are cute. They found out this about us long ago. Call us the leaders, accept our orders (now and then, with grumbles, when the thing has to be done anyway) and we'll run things for them and do all the dirty work."

"And we call it the Divine Right," murmured Florence, feeling her ears redden.

Alec nodded. Suddenly, forgetting Shaw, Florence was laughing helplessly. It was a new point of view that Earth ruled the galaxy because no one else but the restless, proud, touchy Terrans could be bothered.

She didn't need much explanation, once she had the idea, Alec noted. But then, that was to be expected.

One day it would be impossible for Onao or anyone else to surprise Florence Gilbert, or whatever her real name was, once she knew why she mattered. Obviously she still hadn't the faintest idea.

She had known, weeks ago, that Onao was staring at her and hating her. There was nothing very strange or unusual in that. She was merely using the sixth sense that human beings had had for a long time, and knew they had.

But Florence had more of this sixth sense than most people. Alec had felt it, almost physically, when he had hurt her and she was furious and focussing her fury on him. When it was as strong as that, no matter how untrained, how undeveloped, one didn't refer to it vaguely as a sixth sense any more. When it was like that it was telepathy.

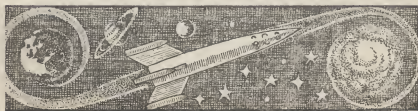
As Major Ewan had said, however, that was another story. What really mattered was that the first step in Florence's training had been a success. She had grown up.

She knew what gave Terrans their Divine Right to rule...

Restlessness. Pride. Here's to us—who's like us? Egotism. Megalomania. The Terran heritage.

And behind it all, wry humour to know that and still do the job.

**J. T. McINTOSH**



# Troubleshooter

*Captain of a danger-ridden spacecraft, his life was threatened by the mutinous crew: but somehow, things didn't quite add up.*

*Illustrated by Bill Price.*

THE first thing to emerge out of the blackness was a luminous green circle; and crossed orange lines that rotated; faded; flickered and vibrated as though endowed with violent primitive life. There was a voice too; but the syllables it spoke were meaningless at first. For a long time; it seemed; the colours and the voice persisted in their incomprehensible ritual; then abruptly Colby noticed that the ebony background was becoming mottled—bleached—and shapes were forming. The voice began to take on significance. He had the distinct impression of being forcibly shaken by the shoulder.

"Come on, chief. Wake up," the voice was saying. "Pull yourself together. We're in a jam."

Colby sat erect, and groaned, pressing a cold hand to his throbbing head. His environment had clicked into shape; the huge resilient seat, the instrument panels, the radar and vidar screens, the fat cable conduits, and the thousand and one multi-coloured switches—all added up to the familiar or almost familiar control cabin of a deep-space rocket.

Painfully he turned his head and stared blankly at the man who had been talking to him. The other's hand was still on his shoulder; gripping it insistently—almost fiercely. He found him-



self face to face with a stocky square-jawed man wearing the smooth grey uniform of a licensed astronaut; but nothing clicked into place—there was no recognition, no memory that provided any data that made sense to him.

Colby said: "What the heck am I doing here—and who are you?"

"What's the matter with you?" said the other. "Can't you take a hyper-grav drag? It was your own fault anyway—cutting in an extra bank of boost jets three seconds after take off. You pushed the acceleration up to eighteen gravs."

"Take off?"

"Sure—take off. Don't you remember?"

Colby allowed his eyes to rove over the instruments on the panel. The layout was new to him—different and more advanced than the types he had operated at the Astronautical College. Funny thing—but that was the last and only memory that seemed to be present in his mind—the background of the college, the intensive training, the simulated free-fall flights in the drop-shaft, the tests and examinations. And after that—nothing.

Colby said, "I'm darned if I can remember a thing. What is this—an operational flight? And what am I doing in astronaut uniform?"

The other man looked at him with raised eyebrows. "Better take things easy for a time, chief. That eighteen-grav boost must have shaken you up more than somewhat. In a little while you'll come out of the black-out."

"I'm out of it already" Colby snapped. "I find myself sitting in the pilot's seat of a deep-space rocket, wearing a pilot's uniform, and I don't know a thing about it. It doesn't make sense. Have I lost my memory or something? What's the date?"

"May the 14th—2170."

Colby looked at his partner incredulously. "2170? One of us is crazy. That's five years in the future...?"

"Future nothing. That's now—here and now."

"Look," said Colby evenly. "Before I went into this sleep I was at the Astronautical College—in 2165—that's five years ago. I was a student. What's happened to the years in between?"

"Hm—looks like you are an amnesia case. That means trouble, chief—because right now we are in a jam. I'd better explain. My name's Slade. I'm the Astrocomputing Officer—and you're the pilot—and this is the deep-space freight rocket

*Zylex III.* We're on an emergency mission. A pioneer expedition carrying ten scientists had a blow-out just beyond the orbit of Jupiter, and lost half of its torque and boost jets—and most of its fuel. We're carrying urgent replacements. Those scientists have got to be brought back. It's top priority, chief. We've got to get there."

"I see."

"Yeah—but that's not all. You made an error of judgement at take-off, with the result that a bank of boost jets were cut-in too soon. They overloaded and blew out. Number 3 fuel tank fractured and drained. There may be more damage yet—Steiner is inspecting the hull in a space-suit."

Colby considered this for a moment. "And what does it all mean?" he asked.

"I've made a few rough computations," Slade explained, "and it doesn't look good. We have enough fuel to reach the stranded ship—and when I say stranded, I don't mean motionless, I mean helpless in a wide orbit with a velocity of about eighteen kilometres per second. We're going to rendezvous at an intercept orbit—if we're lucky."

"Okay—so we can get there. Then what?"

"We can't get back. Even if we do manage to jockey the *Zylex III* into a homing orbit, we haven't enough fuel to land—even with maximum air-braking. We haven't enough fuel to land on any of the inner planets."

Colby frowned. "That makes it a suicide trip?"

"Yeah. That's about it—unless we go into an immediate satellite orbit round Earth instead, and have ourselves rescued by light spacecraft."

"That sounds feasible. We could transfer to another deep-space rocket..."

"Not a chance, chief. This is the *Zylex III*."

"Meaning what?"

"Well—there are only three deep-space rockets in existence. They're all called *Zylex*. The expedition ship we're supposed to intercept is *Zylex II*. The other one—*Zylex I*—is in dock for a complete jet reline. It won't be in service for ten weeks. The men in *Zylex II* can't survive that long—they've got air trouble, and are already wearing space-suits full time. Well, chief, that's the situation. You're in command. Take your pick!"

Colby's mind was a riot of confused thoughts, intermingled

with a strong feeling of resentment. To make a faulty take-off and cause a blow-out was fantastic; to be saddled with a life and death responsibility on a mission that he couldn't even remember was even more fantastic. He glared at the radar screens and the instruments, but they stared back with wide unwinking eyes—unmoved, without meaning. What do you do when you're on a priority rescue mission and a catastrophe turns it into a suicide attempt? What did the book of rules say about that? Somewhere at the back of his brain incoherent fragments of carefully memorised precepts struggled for recognition—the first duty of an astronaut is to preserve at all costs the safety of his ship—to avoid action that would jeopardise the lives of his crew—to obey without question orders and instructions from higher authority—but they conflicted.

The problem was simple enough: which was the more important—*Zylex II* with its scientists, or *Zylex III*—with what...?

"How many men are there in the crew?" he asked.

"Six."

"And us—making eight?"

"That's right."

He thought: this is a helluva time for a guy to lose his memory. To know nothing, to be five years out of date, to be in command of one of the only three deep-space rockets in existence—with no technical knowledge of the instrumentation other than a hazy recollection of simulated deep-space control cabins at the college. To be responsible for the lives of men—with a choice of survival for either the rescuers or the rescued. It was unfair. It was impossible.

"Better hurry, chief," said Slade. "We're moving fast, and we'll soon be out of satellite zone—in fact, we may be that already."

Colby made up his mind suddenly and uncompromisingly.

He said: "We keep going, Slade. We intercept *Zylex II*, carry out repairs and refuelling, see them safely off—then figure out how we're going to save ourselves."

Slade shook his head slowly. "It won't be popular with the crew. They won't like it, chief."

"They'll have to like it. Those are my orders."

At that moment a heavy airtight door swung open at the remote end of the cabin and a tall wiry man entered. He crossed to Colby, saluting in a perfunctory manner.



"This is Steiner," Slade explained. "He's just been outside inspecting the hull."

Colby said: "Well, Steiner?"

"We're about 65 per cent serviceable," the other stated, shifting uneasily on his feet. "The boost bank is burned out. Fuel tank 3 is fractured and empty. And the feed lines to No. 3 turbine were fused through by the heat—which effectively puts fuel tank 2 out of action—unless I can sweat a by-pass feed-line over the gap. It will mean floating the radio-active catalyst store off into space for about sixty hours, which will prevent any manoeuvring or orbital corrections until the job is completed."

"Okay," said Colby. "Do that."

Steiner shrugged his shoulders. "It won't be any use. We still can't make the return trip. I don't see much future in a one-way flight into deep-space."

Colby scowled. "It's not your job to see into the future, Steiner. The mission takes priority. We carry on as per orders."

Steiner coloured slightly, but stood his ground. "I don't think we ought to, chief. It's crazy."

"I'll be the judge of that," snapped Colby.

"You're the cause of it, come to that," said Steiner. "None of the men would object to a suicide job if they'd volunteered for it or expected it. But this ship was fit for a return flight—until you bungled the take-off. That's different. You haven't the right to condemn the crew to death because of your inefficiency."

Slowly Colby stood up, his eyes narrowed, lips drawn in, and stood facing the other man. Steiner moved his feet uncomfortably, but kept his eyes fixed defiantly on his superior's face.

Colby said, speaking quietly and ominously: "Whether I bungled the take-off or not doesn't matter. I'm in command of this ship, and you take your orders from me. We carry on to the intercept rendezvous. Once the mission is completed, I may ask for your advice—but until then you do as I say. Understand?"

Steiner hesitated a moment, evidently gathering his courage. "I don't understand, chief. Nor will the rest of the crew. You placed us in this position, and it's up to you to get us out of it—as soon as possible. Ask Slade. Ask anyone."

"Well?" Colby demanded, turning to Slade.

The Astrocomputing Officer sighed. "Why ask me? You're the boss—right or wrong."

"What do you mean by that?"

"Well—damn it all, chief. It was *your* mistake. It was criminal carelessness. No qualified astronaut would cut in a bank of boost jets at take-off."

"So you agree with Steiner—that we ought to abandon the mission, and go into a satellite orbit and send an SOS to Earth base?"

"No guy likes to die because of someone else's stupid mistake," Slade said bitterly.

Colby took a deep breath and stood squarely on his feet. "Now let's get this straight, you two. There's only one boss on this ship, and that's me. As Slade said—wrong or right—I'm in charge. We're going on with the mission—live or die. I don't want to hear any more argument. And let me tell you this—if there is any more mutinous talk from either of you, or any other member of the crew, I'll put him under arrest and confine him in the long-eron interspace cavity for the rest of the trip."

"If you do that to one of us, chief, you'll have to do it to us all," said Steiner dangerously. "And you'll have to fly the ship

on your own. That is—if we don't put you in the interspace cavity first."

The situation, thought Colby, was getting out of hand. What did you do when faced with a mutiny in space? How did you control men, and make them obey you, when you couldn't remember taking a ship into space before—in fact, couldn't remember a thing? What did the book say about discipline?

A thousand and one unanswerable questions flocked into his mind, but there was no time to pause and consider. Slade and Steiner were watching him curiously and defiantly. He had to act quickly and seize the initiative. Automatically his right hand slid to his waist, to the heavy belt that girdled him. He didn't know whether he was armed or not, but his fingers touched something smooth and cold...

Slowly, keeping his eyes fixed on the other two, he withdrew the weapon cautiously from its holster, then examined it cautiously. It was one of the sleek sinister chloral pistols, loaded with a clip of fifty slugs, each capable of putting a man into a coma within two seconds of impact. He palmed the butt with a secure confident feeling, and turned his attention to Slade and Steiner.

"You know the law as well as I do," he stated flatly. "I have the right—the duty—to prevent mutiny by any means within my power. If necessary, I can kill a mutineer—and there won't be any questions asked afterwards. Don't forget it. Now get back to work, and don't enter this cabin unless I send for you."

"You're not being wise, chief . . .," Slade began, but Colby cut him short.

"Get going and don't argue. We proceed with the mission."

Sullenly the two men went out, leaving him alone with an enormous problem to solve, and a difficult situation that threatened to become even uglier in a short time—once the remainder of the crew knew the story of what had happened.

Wearily he lowered himself into the resilient padding of the control seat. The radar screen was still flashing with green and orange light. Absently he tried the feel of the switches and knobs, bringing in a radial strobe. The calibration on the transparent scale indicated the distance from Earth; without inspecting it closely he estimated it to be about one and a half million kilometres — or nearly four times the distance from Earth to the moon. The fact seemed to ring falsely in his brain, but he hadn't the energy or the interest to carry out a computation.

He switched in the rear video monitor, and saw the Earth

—a broad crescent of light almost filling the screen. It looked clean and hard, almost well-washed, with strips of opalescent cloud motionless above the grey, green and brown of land masses, and the blue of the oceans, as though painted upon the shiny surface of a tin globe. He shook his head doubtfully, and switched off.

Things didn't seem to tie up, but how or why he couldn't even begin to guess. Perhaps the trouble lay in his own mind—the result of amnesia? That didn't tie up either. And where did the amnesia itself fit in? Slade had mentioned an 18-grav take-off—but that was nothing. In the centrifuge at the College he had withstood 25 gravs with nothing worse than a headache and a deep black-out to show for it. Heavy grav didn't produce amnesia. There had been no concussion so far as he could remember, and there were no tell-tale bumps on his head. Even the headache—a normal after-effect of high-grav black-out—was fading. Nothing added up, and the more he thought about it, the more incredible the situation became.

Following this train of thought, he realised quite suddenly the significance of his position as pilot of a deep-space rocket. At College he had been trained in simulated deep-space control cabins, but at that time the interstellar rocket was a new development—and there had been only one in service, with a second one under construction. *Zylex I* was the name—that tied up—but how did he get to be the pilot of *Zylex III*? It was inconceivable that the Astronautics Control Board would appoint a junior astronaut only five years out of College to such an immensely responsible post, and place him in charge of such a vitally urgent mission? He struggled to recall some highlight from the intervening five years, something that might offer a clue, or set in motion a memory train that might help him to decide on his future policy—but there was nothing.

He stood up and paced round the circular floor of the cabin, studying the graphs and abacs on the walls, gazing thoughtfully at reference books in the plastic lockers. He took out a volume on celestial mechanics, riffled through it in a preoccupied manner, then, as he was about to replace it, the book slipped from his fingers and fell to the floor. He picked it up slowly. That was something else which didn't tie up—another false harmonic to add to the symphony of discord in his mind. But its significance baffled him for a few moments.

Abruptly he realised what was wrong: the book had fallen

to the floor as an ordinary object would fall to the floor under normal terrestrial gravitation—but in space there was no gravitation. The *Zylex III* was in free fall, and he should be floating around in the cabin space like a bubble, or, if the ship was in a slow spin, walking around the walls like a fly...

Unless the last five years which had been obliterated from his mind had seen the development of artificial gravity?

Quickly he returned to the control panel, and studied the layout. An idea was beginning to form in his mind—a fantastic unbelievable idea, but one that made sense and added up, embracing all the inconsistencies and even explaining them—including the mission and the mutiny. He selected the row of torque jet levers, hesitated for a second, then pressed them all down together.

Nothing happened. There was no thunder or thrust or vibration or drag. Just nothing.

The door opened cautiously and a group of men came into the cabin, walking slowly towards him. He recognised Slade—dark-eyed and ominous—and on his right, Steiner, carrying an eighteen-inch wrench. Their was danger in their advance, and it should have unnerved him, but all he did was laugh—a loud hysterical laugh with no undertone of fear. A laugh of relief.

Slade said: "Go ahead, chief. Laugh if you want to—while you've got time. We're taking over this ship."

"We're going back to Earth," Steiner added.

Colby surveyed them calmly, then drew the chloral pistol with cold deliberation.

"I wouldn't do that if I were you," Slade warned him. "You might get one or two of us—but the others would kill you."

Colby said nothing. He raised the pistol and with lightning speed squeezed the trigger again and again, firing point blank at each member of the crew in turn. The pistol jerked slightly at each movement of his finger, liberating a tiny whisp of white smoke but the crew remained standing, staring at him enigmatically. It was the final clue he needed to complete his hastily integrated picture of the real situation. The pistol was ineffective because it was loaded with blanks.

He flung it contemptuously to the floor and pushed his way through the men, making for the door. Slade was coming behind him, but he didn't care. He hurried down a narrow corridor, over a grilled catwalk suspended across fuel tanks, and into the inner compartment of the air lock. Slade followed him in before he could seal the door.



"Where are you going, chief?" he asked.

"Wait and see."

"Don't you need a spacesuit?"

Colby did not bother to reply. He waited until the indicator light showed vacuum, pointed to it with an expression that seemed to say "I'm still breathing, ain't I", opened the outer door, and jumped down to the concrete ground of the hanger eight feet below.

He looked back at the *Zylex III*—a twenty-foot tall structure fed by massive bundles of cables—nothing more or less than a giant simulator. Slade had jumped down too, and was standing by his side, grinning pleasantly. From across the hanger a group of uniformed officers walked towards him, and he recognised two of his instructors at the Astronautics College.

"You were smart," said Slade. "Most of the students are fooled on the final initiative test."

"I was fooled too, at first," Colby said. "Then things didn't quite add up, and putting all the clues together — well, there was only one answer."

"How did he make out, Slade?" asked one of the officers.

"An alpha plus, sir. He's a born troubleshooter, if ever there was one. And he has the makings of a strict disciplinarian. And he's shrewd too. He saw through the whole thing before we had time to start the mutiny."

The officer took Colby's hand and shook it vigorously. "Congratulations, Colby. That was your final passing out test—under realistic simulated conditions of a deep-space flight. We had to drug you before the test, of course, so that you would have no memory of being put in the rocket—and to make the amnesia story plausible. The idea is to try you out with a really tough situation, and study your reactions."

"I see," said Colby. "A little applied psychology."

"Exactly. One final point—this test is top secret. It has to stay that way. If students knew about it in advance—it would be useless."

"I understand, sir. I won't say a word to anyone—and in any case, I wouldn't want to deprive my friends of the worst moment in their lives."

"Okay," said the officer, then turning to Slade: "Next test tomorrow at the same time."

## Projectionist

*At thirty, blindness and infirmity were relentlessly creeping over him; yet who could avert the inevitable?*

**Y**OU wonder what is making your nape prickle.

For a moment you rest your hands from their busy manipulations with the stolen apparatus and sit in the dormant silence that you've known for years . Quite still. Your sightless eyes involuntarily probe the darkness about you.

Nothing comes to your senses. Sounds may play with your eardrums, your pupils may come to terms with light—but beyond the organs of special sense there is nothing . Something wrong with the nerves, they say.

But it is still there. *The prickling.*

You feel that something is with you in the room. Not a person. You'd know that well enough. Even if the outer alarm had failed, your scanner would have told you. But—just to make sure you take your hands away from the apparatus, switch on the supersonar again and settle the receivers closer to your

mastoid bones. You sweep the scanner beam across the room.

Nobody. Nothing but the simple furniture, the plain walls, the regimented conformity of a room in the Society of Ageds.

As you wait in the darkness and the silence, the feeling goes. Your heart quiesces and your respiration smoothes. Your nape relaxes and the muscles go back to their vestigial sleep.

You shrug definitely and turn back to your work. Just below the skin your fingers have their own eyes and ears. You take a silent pride in the way those slender digits twist and turn among the flex, the tubes, the capacitors and resistances.

You cold-solder a contact and let your finger tips drift lightly along the wire to the terminal. The final constructional stage is ready. Everything is ready. The years of furtive research, the frustrations, the failures, may be at an end. All you have to do—

Quite suddenly the realisation sweeps over you in a flooding torrent of inner awareness. You should have known it before. You should have worked it out the first time.

That last contact did it. You know that now. Previously the prickling had come when you held the flex down preparatory to picking up the soldering gun. Now with the contact securely in place it has come to stay.

You let your hands rest on the bench. The silence makes itself apparent again—the way it does only in moments like these. The darkness is blacker than the mere absence of light has a right to be. And out of the darkness comes the answer. This time it is a roaring cascade of mingled pride and awe and excitement and jubilation.

You have succeeded. Where so many others—like Benin—said it was impossible. And they say that you are blind! You You have done what they all said you could not do. You've projected an entity. You have entitised a projection. Out there, somewhere in the room is the first stage in man's renaissance. And you will not be thirty for two weeks.

Involuntarily you lift your head and turn your functionless eyes towards it. Involuntarily your lips shape words.

"So you are here at last," you say. Say with the pulsing emanations from your mind.

The receivulator works. The incoming pulsations surge through it and emerge as letter-images in your own mind, your real mind's eye. It answers you.

"In time, I hope?"

*You remember . . . back to years ago . . . when your eyes could see and your ears could hear . . . back to the first attempt . . .*

Across the desk from you sits the Integrator of Mechanistics. The highest rank in man's scheme of things. He is a brittle boy. His voice and movements seem like glass under strain.—ready to shatter, ready to shiver into tinkling pieces at the first note of a resonant frequency. That's how he'll go, you reckon, when he's thirty. Right now he is only ten. Twenty years to go.

"You could do a lot in twenty years," you tell him. "In twenty years you could do all that's necessary."

He blinks, twitches his lips and rubs his fingers together. "I *will* do a lot," he clips. A smug glint creeps into his eyes. "I have twenty years. You have only two."

It doesn't hurt. Not now. "That is why I came to see you, Integrator," you answer. "With your help I could start the right movement and then leave it for those who come later to finish. I could—"

"Yes, yes," he cuts in, dragging his eyes from the clicking calculators. "With my help you could do many things. But you will not have my help."

"That's final? You won't think it over?"

"I don't need to think it over, Nalard." His voice is smooth and low. "I am ten. You are twenty-eight."

You drop your eyes before his logic. False logic. Logic that has only a statistical significance. It applies well enough to the masses, but not to you. You are an exception.

True, you have drifted eighteen years further into degeneration than the Integrator, but there is something he does not know, has never thought about, refuses to think about.

"You disagree with me entirely?" you ask.

"Entirely."

"Can't you see, Integrator—for centdecades we have made machines. Function after function has been relegated to gears, levers and electrons—functions that once were the prerogative of human hands and minds. Look at me. I am only twenty-eight. I shall live until I reach the age of one hundred and eighty-five years—plus or minus three.

"Yet when I am thirty—within six weeks either way—I shall cease to be of use. Already my sight is dimming and my hearing fades. Already I am receiving instruction in the use of scanners, auditors and autodrive chairs. Already, Integrator,

my teeth have gone, my jaws are unfit for chewing and my legs can carry me no more than one hundred yards—”

“It comes to us all, Nalard,” the Integrator breaks in.

He sighs, flashes you with his still bright eyes and smiles with the omniscience of youth. He holds the lightness of his years before you, a symbol of his intellectual peak. Ever it was so, you imagine. Could there have been a time when the old wanted stasis and the young wanted change? Ever a time when the old were not noted for ignoring the advice of the young?

“You see,” he goes on. “There is no turning back. We must go on with the machines. This is an age of Mechanistics, Nalard, you cannot change that.”

“I can. I can!” you cry. “Not by reversing the clock. I know that man has diverged too far from natural evolution ever to get back. But there are other ways. We do not have to die at thirty!”

“Die? You will not die at thirty. You will join the Society of Ageds and be cared for in the best possible way. Your every need will be satisfied.”

“Except the need for thought, for doing, for being a man and not a creature in a zoo!”

“If you have any complaints—”

“No, no. I don’t mean that. I mean regeneration. We cannot get back the use of our eyes and legs and teeth—but we *can* provide a substitute for the mind. A projection if you like.”

The Integrator smiles softly. He jerks a hand towards the call button on his desk top. “I’m sorry, Nalard,” he says. “Psychology has taken its place among the Humanities as a useless pursuit. The mind is a matter of atoms and molecules, electrons and fields, not projections. Thank you for coming to see me.”

His finger comes away from the call button. Your chair begins to move backwards to the door along the moving band. Your last view of the ten-year-old Integrator sees him striding towards the calculators.

*Forward . . . forward to the second attempt . . .*

Your dimming eyes take in the bank of electronators with their garping dials. As your dying vision sweeps round the lab your ears detect a muffled hum and a constant clicking.

Chief Experimentor in Biology Benin notes your glance and lets an expression of satisfaction settle on his fair, pinched face. He smiles at you with all the confidence of his thirteen years. He's proud of his apparatus, proud of his post.

"You know why I am here, Chief Experimentor?" you ask.

His smile droops. "I'm afraid so. The Integrator of Mechanistics teliod a while back, hinted at your—ideas."

You catch the hesitation, the slight chord of distaste in his voice. "You don't like people with ideas?"

Benin coughs and tries to be polite—or rather, not rude. "Well, you know, Nalard, the machines seem to have ideas that are so much beter than ours. Anyway for an oldster of twenty-eight to have them . . ."

His voice tails off. You know what that means.

"I had hoped, being a biologist, you might have sympathy with my ideas," you say.

He slides himself down from the back of the chair and lands with a thud on the seat. He places his hands firmly on the desk. "If you have a mind, put these ideas from it. I can tell you quite frankly they are useless. I know. Remember I am nearly half your age."

The same old logic. You look away and let your eyes rest again on the apparatus. "It is for that reason—that you are nearly half my age—that you can do so much," you say. "In seventeen years you could—"

"I could, but I am not so foolish as to do so," Benin cuts in. Those seventeen years will be all too short. I must make the best of them."

"You wouldn't be needed for the first two years," you explain. "By that time you would be convinced. All you have to do is give me permission. Then—"

"Nalard!" Benin raps out. "For the last two and a half centdecades it has been illegal for persqns over the age of twenty-one to possess, handle or acquire any form of scientific apparatus. I am not going to revoke that Rule so that you can meddle with necromancy. My permission is refused. This interview is terminated."

Again your chair moves back at the command of his viciously jabbed call button. As the doors slide across between you and the lab, you see Benin losing himself among the egestions of the machines.

*Forward . . forward again . . to the third and last attempt . .*

As your motor chair glides soundlessly up the ramp before the Institute of Cephalics, you know that this must be your final bid for permission. If Bergson is like the other two and refuses you a permit—well—you have a plan. An ancient plan, not new. A plan that's never been operated since the last death struggle of anarchy a thousand centdecades ago, when the distribution curve of crime became a horizontal line running through the plane of zero. When larceny became history . .

The screen on the robotsec flashes to life. Your identity has been established, passed to Bergson, accepted. The screen gives you the answer in black letters on a shimmering green ground. "The Director will see you."

Simultaneously the inner doors glide apart. Your chair is carried along by the moving bands into the elevator. The lift rises, stops, opens its doors. Again the bands take over. Your chair moves forward along the corridor, trips a contact in front of a room at the end. The room door slides back and your chair rolls in right up to the desk.

Director Bergson looks a little older. Some of his teeth have gone and he squints a little. The way he twists his head towards you indicates that his ears are going under, too. You reckon he is about twenty-one. A man.

"Forgive my not standing, Nalard," he says. "My legs are beginning to age. What can I do?"

He coughs. He's embarrassed. Losing his youth, his body and his mind. Becoming a man. You can see they've been at him, the other two. See they've told him what to do, how to react. When you remember how you and Bergson used to work together before you were put on the inactive list, a cold, vicious rage smoulders somewhere inside you. You look up at him.

"I needn't bother you. I see the way it is. I'll go."

"No, wait." He puts out a hand. "I'd like to talk about it, Nalard. Have you tell me your ideas. See if I can help you straighten them out—"

He stops suddenly, but it's too late. You know now what they told him. Hear your ideas. Then persuade you you're wrong. Talk you out of it, so you'll go back home and forget. But you're going to play it your way.

"You are a case in point," you say. "For twenty-one years you have served science and given humanity benefits. You will live another 164 years, but only nine of them will be productive.

At thirty you will join the Society of Ageds. Eighty-three per cent of your life will be spent in infirmity. Are you happy about that?"

"I am neither happy nor unhappy, Nalard. Many cent-decades ago men's effective lives ceased at sixty and they died at seventy. They were not unhappy. They accepted it."

"Did they, Bergson? Wasn't it because some men did not accept it that efforts were made against disease and accident so that longevity was increased gradually to its present figure? Wasn't it the same refusal to accept without question a fate that had never been challenged, that led to the present position where man is born resistant to disease and malignant conditions? Where life can be maintained for *one hundred and eighty-five* years instead of seventy?"

Bergson wipes a hand across his forehead. "I'm sorry, Nalard. Haven't done a lot of thinking lately. What you say is complicated, difficult to understand."

"What I mean is this," you reply. "Why do we accept this limitation on our useful lives? Why are we prepared to drift into dotage at thirty?"

"What else can we do? The human race has lived in opposition to natural evolution for centdecades. We cannot alter the change in our physique. We cannot go back."

"I know that," you answer. "But do we have to stand still? Why can't we go forward?"

"Forward?" Again that hand, again that frown.

"Yes, forward." Your voice is eager. Perhaps after all you can convince him. "We accept the physical degeneration if you like. Machines can take care of our bodies. But our minds, Bergson, our minds. Can't we do something about them?"

"What can we do for them? You are confusing me, Nalard. My brain is whirling. The electronic paths—"

"Of course you are confused. That is what I mean. So far I have escaped. My brain still seems clear. Maybe because I never was very bright. But I haven't long, Bergson. Soon I will be doddering, half-conscious, confused and vacant. More like a sleepy dog than a man. Give me permission, Bergson! Let me save our minds!"

He straightens up and a new light comes into his eye. "Wait, Nalard. You are wrong about yourself and your ideas. It is because your mind is halfway to senility that you talk like this. We can no more prevent the degeneration of nervous tissue



than we can stop our legs and eyes losing their function. The mind is brain, Nalard. And the brain is nerves. And nerves rot away like any other tissue!"

"But beyond the nerves, what is there? You do not believe that our minds are the result of myelin and phospholipids!"

"Of course not. I was merely simplifying. Beyond the nerve are electrons, fields and forces, electrical oscillations and so on."

"That is the basis of my argument. You say that the electrical effects must needs have nerves for their expression. I say that is not true—that it has never been seriously challenged. I say the mind can exist without the brain and the nerves. *That* is what I want to work on, Bergson. I want to project the electrical entity of my mind beyond my body—*before* it reaches sensibility. Once outside, I could retain its pattern with static charges from one of your infernal machines. It could be immortal, Bergson. At twenty-five, say, we could project our minds outside and throw our bodies on the dust heap. We could—"

"Nalard!" His voice cuts across you, beats your words to shreds, sends your emotional level racing down to zero. "You are mad, Nalard, mad. I only needed this to convince me. Benin and the Integrator are right. Cerebral necrosis has begun early in your case. You are a potential danger. I must ask you to join the Society of Ageds immediately. Benin and the Integrator ask it too."

The whole world has lost its meaning. You are just hanging in space with pictures floating around you. It can't be true. But you look at Bergson's face and you know it is true. For a moment you want to refuse. But you can't. Three requests cannot be refused. That is the Rule. You must obey.

A glint of hope comes. "May I come here occasionally?" you ask.

You raise your head and see him nod. You know he is sorry. You know he is going to be sorrier.

*Your thoughts drift forward again . . . past that fearful night—the initiation at the Society, the little room, the robots . . . past the months of isolation, the vetting, the prying, the hypnotic sessions, the final clearance . . . forward past the first visits to Bergson . . . the stealing of his apparatus . . . past the early trials, the stiffened fingers, the failed experiments . . . past that fearful day when*

*you woke to nothing but darkness and silence . . when you became dependant on your scanner . . when you were blind and deaf . . forward to the latest experiment . . to the culmination of your research . . forward to the present . .*

"In time, I hope?"

The incoming pulsations. That is the important thing. Pulsations coming in. They must be coming from something. The scanner says there is nothing, nothing material. Then it must be your projection.

"Yes," you say breathlessly. "Yes, you're in time. How—how are you?"

"More power, feed more power."

You'd kept the power low in case—well, just in case. There's no need to hold it back now. You increase it slowly. The pulsations coming are chaotic. The prickling on the base of your neck is almost unbearable. You have succeeded. Succeeded where they all said you'd fail.

They'll let you out now, you think. Make you Integrator. The highest honour for the highest achievement. Man's renaissance. The thirty limit will become history—like larceny.

All the time your fingers turn the knob that increases the power. Your hand seems separated from your body, a long way away. The knob is growing smaller even as you turn it to full power. The pointer looks diminutive as the faint click marks the limit of its movement.

*Looks. Click.*

But you are blind. You are deaf. Yet you can see it quite plainly, the pointer, the apparatus, the room, the body—*your body.*

A swift panic races over you as the realisation comes. Your mind is outside your body. You are a mass of electrons and fields and forces hanging in space—with only the thin beam of power connecting you to tangible things.

You try to move towards the apparatus, but you can't. You have no means of locomotion. All you can do is hang there in the middle of the room, thinking.

The door slides back and a robot comes in. Its photocell sweeps across the room, alights on the body, rests there awhile. The robot goes out. You call to him as he passes through the door, but there is no response. He cannot hear.

You stay there thinking as the minutes pass. You have memory. You know that you connected the projector to the

power machine and that so long as it exists so will you. The static charges will keep your fields and forces in pattern for eternity . .

The door slides back again. Benin comes in. So does Bergson and the Integrator. They stand a moment looking at your body. Their lips move and you catch their words .

"Perhaps we shouldn't have let him steal the apparatus . . thought it would give him something to do . . electric shock . . take him away . . "

You see the robot go across, pick up your body and stalk stiffly away with it. The three men walk over to your bench, to the apparatus. You call out to them. You tell them you have succeeded, that here is their only chance, their renaissance. You plead with them, curse them, threaten their lives. But they cannot hear.

They walk around the apparatus, afraid to touch the point that gave the shock. Then Bergson reaches out. His hand comes down to the power control. Panic mounts up and swallows you. You shout and rave. You shriek at full intensity.

*"Bergson! BERGSON!"*

If only he would wait awhile you could get through, you're sure of that. He hesitates, inclines his head and stares round the room. If he'll only—but he shakes his head and goes back to the power control. Stark fear and frenzied madness scream through you as you watch him twist it down and down. Once more you cry out, a piercing, agonised wail. But the pointer is nearing zero. Fascinated, you watch it getting nearer.

And nearer.

And

ZERO.

H. J. CAMPBELL

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# Gorgon Planet

*How to kill an animal whose  
very glance means certain death?*

*Illustrated by Jack Wilson*

OUR troubles started the moment the stiffened corpse of Flaherty was found. It was standing frozen in a field half a mile from the ship. We had all hated the big Irishman's guts, but finding his body completely unharmed, stock-still and standing alone, was quite a jolt. There was no apparent sign of death—in fact, at first we thought he was asleep on his feet. Horses do it, and Flaherty wasn't far removed from a horse.

But he wasn't. He was very dead, dead as hell. When the entire human population of a planet consists of eight, and when one of those eight dies suddenly of unknown causes, the framework of your existence tends to sag a bit. We were scared.

"We" being the first Earth Exploratory Party (Type A-7) to Bellatrix IV in Orion. Eight men, altogether, charged with bringing back a full report on the whole planet. Eight, of whom one, ox-like Flaherty, was stiff as a board before us.

"What did it, Joel?" asked Tavy Upton, our geologist.

"How the blazes do I know, Tavy?" I snapped. I regretted losing my temper instantly. "Sorry, Tavy. But I know as

much as you do about the whole thing. Flaherty is dead, and there's something out there that killed him."

"But there's nothing out there," protested Kal Framer, the biologist. "For three days we've hunted up and down and haven't found a sign of animal life."

Jonathan Morro, botanist, unwound his six-feet-eight and stretched. "Maybe an intelligent plant did him in, eh, Kaftan?"

I shook my head. "Doubt it, Jon. No sign of violence, no plants in the vicinity. We found him standing in the middle of a field, on his two big feet, frozen dead. Doesn't figure."

Over in the corner of the cabin, Steeger—medical officer—was puttering around the corpse. Steeger was an older man than most of us, one who had literally rotted in the service. He had contracted frogpox on Fomalhaut II, and now wore two chrome-jacketed titanium legs. I looked over at him.

"Any report, Doc?"

Steeger turned watery eyes towards me. "No sign of any physical harm, Joel. But all his muscles are tensed, as if—as if—well, I can't phrase it. He seems to have been frozen in his tracks by some strange force. I'm stuck, Joel."

Phil Janus, our chronicler, looked up from the chess game he'd been playing with pilot Gar Holden and laughed. "Maybe he had an overdose of his own joy-juice and it hardened all his arteries."

That was a reference to the crude still Flaherty had rigged the day we landed on Bellatrix IV. His duties as navigator had kept the big fellow pretty busy all trip, but first day down-planet and he spent his first idle hour building the still. He didn't say a word about it to anyone, but had shown up at mess that night pretty high. He never told us where the still was, though we searched all over. The second day Janus had located a litre flask of whisky home-brewed and his sampling had cost him a black eye.

"No," said Framer. "Let's be serious a moment. One of our group is dead, and we don't know what killed him. There's something out there that Flaherty crossed. I move we organize a searching party to find out what."

"Seconded," murmured Morro.

I looked at the corpse for a moment, then at the six men around me. Framer was my solid man, I knew, the leader of the group. Morro was strong, too, but usually too bored to bother with the welfare of the group. Young Holden, the pilot, was a

follower; he didn't have any thoughts of his own, or at least he didn't express any. Tavy Upton I knew: quiet, smiling, unassuming—not very strong a person. Doc Steeger was small, frightened, not at all the sort of man who'd go gallavanti around space as part of an exploratory crew. Flaherty, thank the Lord, was dead. The big ox had threatened nasty incidents many times, and had been a constant source of dissention on-ship.

As for me—Joel Kaftan, Lieut. (Spatial)—I was scared. Plenty scared. Visible monsters on a planet are bad enough; invisible ones are hell. I looked out at the port and saw the vast, empty, tree-studded plain that was our chunk of Bellatrix IV, and looked back at the men.

"All in favour of a searching party, say aye."

Aye it was, and we divided up. There were seven of us, now, and that made it awkward. Steeger was indispensable, as our doctor, and he was no use outdoors anyway. Holden was theoretically dispensable—in a pinch I could probably have piloted the ship—but I would have hated to try, and so I confined him to quarters too. That left just five men for the search.

It was logical to split into two groups, one of three men and one of two. But I didn't think too clearly for a moment, and announced we'd have *three* groups. I didn't figure that one poor chap would have to go out alone.

I teamed up with Upton, and Framer with Morro. That left Janus as a searching party of one. I kick myself every time I remember it: what a hare-brained idea to let one man roam alone!

Janus didn't mind. Phil rarely minded anything. "Looks like I'm a lone wolf," he said. "Okay, gentlemen. If you hear a loud silence from my neck of the woods, run like hell."

The airlock was open anyway (Bellatrix IV has an atmosphere roughly that of Earth's, which was a boon) and the five of us left.

I started out with Tavy and we headed towards the site of Flaherty's finish, very much scared. When your lifespan is 150 or so years and you've got a hundred of them left, you're not too anxious to die young, even as a hero on an alien planet. Framer and Morro wandered up towards the big ridge behind the spaceship, and Janus headed for the clump of twisted red-leaved trees about two hundred metres away.

Tavy and I moved slowly, casting our eyes in all directions. As usual, there was no sign of any animal life. Bellatrix IV had an abundance of plants (not chlorophyll-based plants, but ones with some sort of iron-compound base), a temperate climate, flowing streams of real H<sub>2</sub>O water. But no visible animals. Of course, we hadn't covered much territory yet, maybe two or three square miles.

No one dared make a sound. Then suddenly, in about two seconds flat, we got our first taste of Bellatrician life. Poor Janus came flying out of his copse, and lumbering behind him was a bizarre thing about ten feet high with non-functional wings, gleaming golden scales, and a handful of writhing, pencil-like tentacles.

We stood transfixed. This great beast had appeared from nowhere and was about to finish off Janus. I drew my rifle and put a shot into the scales, without any seeming effect. And then Janus turned and stared up at the beast for a fraction of a second.

The beast stared too, and the frantic pursuit came to an end. They glared at each other for just a moment, and then the monster wheeled and ran off in the other direction. It disappeared over the hill.

But Janus remained where he was, frozen dead.

We planted our second corpse and sat morosely in the cabin. We missed Flaherty just a bit, but not too much. But Janus, though, genial, clever, enormously capable—it was hard to believe he was dead, killed by the glance of a gorgon.

For the beast of the forest was unquestionably a gorgon. Doc Steeger had given us the first inkling when he pointed out that death had been caused by a sudden neural blast.

Framer looked up at this. "We didn't see any physical contact between Phil and the monster, though."

"No," broke in Upton. "Janus just looked at the thing, and then froze stiff—"

The thought occurred to Morro and myself almost instantaneously.

"A gorgon," I said.

"Gorgon," he echoed. He stood up—preposterously lanky fellow—and stared outside at the wide plain with its deadly clump of trees at one corner. "A gorgon."

"Pardon me, sir." It was Holden. "Just exactly what *is* a gorgon, sir? They said nothing about them in the Academy."

Framer muttered something under his breath. Kal, I knew, was a man of wide learning, and he had nothing but scorn for modern educational methods, which were highly specialised. Morro spoke.

"A gorgon, Gar, is a mythological beast. It kills by a glance; if you look at its eyes, you are turned to stone. This thing outside is virtually a living representation of a gorgon, complete to those tentacles on its head. The original gorgon was supposed to have living snakes instead of hair."

Holden said nothing, but his eyes widened.

Upton scratched his long nose with a thick finger. "Joel, how are we going to combat friend gorgon outside?"

"The same way Perseus did," I said.

And so Operation Medusa got under way. It took some preliminary discussion. For one thing, Holden, who held most of our technological information behind his freckled forehead, had not the slightest knowledge of the Perseus myth, and we had to bring him up to date.

Morro, that patient giant, did most of the explaining.

"Perseus, a Greek hero, boasted he could kill Medusa, the gorgon. With the help of the gods he got a pair of magic sandals which enabled him to fly, and a cap of invisibility. Then, he polished his shield to mirror brightness and swooped down on the gorgon, watching her in his mirror-shield, and without ever looking her in the face he cut off her head."

"I see," Gar said. "We have to hunt this gorgon too, and we can't look at it either, or—." He nodded outside at the two brown mounds of earth.

"Right," Framer said. "But we don't have a mirror. And we can't build one. What now?"

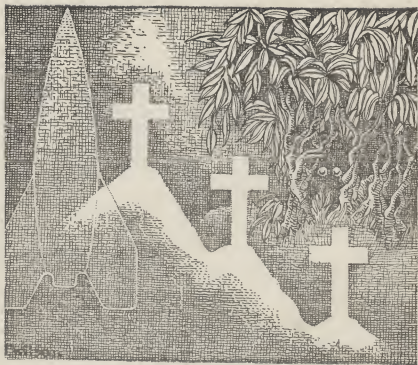
"Try radar," Upton offered.

"That's it," I whooped. "Hunt down the gorgon with radar and blast it without ever looking at the blasted thing!"

From there on Medusa's number was up. But she didn't go down without a fight.

Holden had the radar screen dismantled and set up for gor-





gon hunting in no time at all. The boy's horizons were limited, but in the fields for which he had been educated he was tops. On a warm, summery day, we set out on our gorgon-hunt.

We always had a difficulty adjusting to the red leaves on the trees and especially the carpet of red grass on the ground. Bellatrix IV, as far as we could see, was a huge plain, covered with what seemed to be a bloody carpet. Every time I looked down I felt a twinge, and thought of the two graves near the ship, and of the two explorers who would never get back for another lecture tour on Earth.

Seeger remained behind on ship, peering intently into the radar screen. The five of us fanned out slowly, armed to the teeth and scared stiff. I could see myself that evening, being borne back to the ship, frozen, and sharing that impromptu graveyard with Janus and Flaherty.

Steeger had more to worry about than any of us. Hunched over the radar screen he was; his job was to relay instructions to us. We knew the gorgon was somewhere in the copse, because Frammer had seen the great thing go thundering into the clump

of trees the day before, and no one had seen or heard it since. But only a fool would go in there after a beast that killed by a glance.

Slowly, painfully, the five of us formed a wide circle around the copse, standing no closer than a hundred metres from the edge. Not one of us dared to look up, of course; our eyes remained fixed on the blood-red grass and Steeger directed us to our positions, step by painful step. It took half an hour to form the circle, as Doc would tell first one, then another of us, to move a couple of steps to right or left. Finally the circle was complete—five Perseuses, frightened green.

Then came the rough part, as we waited for the attack. When the call came over the phones from Steeger, I was going to hurl a Johnston flare into the copse, and, if all went as planned, the gorgon would come lumbering out. Without looking, we would fire.

As I look back, I see it was a pretty hare-brained scheme. So many things could have gone wrong that it's a wonder we ever allowed it to go into operation.

Doc gave the signal, and I drew back my arm and flung the flare, automatically looking up as I did. For one horror-stricken second I feared the gorgon might approach just as I looked up, but there was no sign of it.

Then all hell broke loose in the copse.

A Johnston flare goes off like a lithium bomb—at least it creates enough light to simulate one. That copse lit up bright yellow, and I caught the odd contrast between the red of the leaves and the yellow of the light. And I saw something huge thrashing around in the heart of the copse before I jerked my head down. I stared at my feet.

Try blindfolding yourself some time and walking down a city street, an empty street at dawn. The terror is something almost unimaginable, the unreasoning terror of the blind. That's the way I felt, knowing that at any moment a monster might burst out of the clump of trees and leap at me while I stood studying my boots. An awful ten seconds passed, and seemed like days, and I grew progressively more numb with fear, until I passed the point of fright and seemed almost calm. Nothing happened, though the flare continued to kick up a powerful light. I heard rustling noises in the copse.

And then all at once I heard Steeger's tinny yell in my phones.

"Joel!"

In the same instant I drew with my right hand and flung my left hand behind my neck, forcing my head down. I aimed the blaster up at a 45-degree angle and began sizzling away for all I was worth. Over to my left I could hear Morro doing the same.

There was a sound of thunder as of a great beast lumbering around near me. I could hear Steeger screaming something in my phones but I was unable to stop yelling myself. And I didn't dare look up.

For all I knew the gorgon was standing right over me and bending to bite me in two. But I had passed the point of any coherent reasoning. I was still screaming and squeezing the trigger of the now burned-out blaster five minutes later, when Morro and Framer came over and led me back to the ship.

We had killed the bastard, then. And I, Lieut. (Spatial) Joel Kaftan, commander of EExP A-7 to Bellatrix IV, was Perseus.

"We thought we'd never get you up," said Morro.

Steeger said, "I saw that gorgon come out, and I yelled to you. You started waving the blaster around, and Morro came over too. But by the time he reached you, you had blasted Medusa in the neck and pretty near cut that head right off."

Upton took up the story. "You were still blasting away without looking even though the gorgon had fallen on its face. Holden came up and cut its head off but it's still thrashing its wings out there."

"You ruined about three trees with your blaster," Morro added. "Damned careless of you, Joel."

I looked up. The accumulated tension had built up to such a pitch while I was waiting for the thing to come out of its lair that I felt I had been through a wringer and had been squeezed flat. I looked around at the men ranging the couch on which I lay.

I saw great Morro standing at my feet, and old Steeger looking even older after his remote-control chess-game with the gorgon. And there was Holden, and Upton. Four. And I made five. Two dead made seven. It took me another second to realise we were not all together.

"Where's Framer?"

"Out there," Upton said. "The biologist in him got the upper hand, and he's out there examining our defunct friend."

"But you said the wings were still thrashing," I yelled, leaping from the couch. "That means—"

But the others realised what it meant, too, and we raced through the airlock door in no time at all.

We were too late, of course. We found the biologist bent over the decapitated gorgon, examining the head with interest. And frozen stiff.

Averting our eyes, we carried Framer back to the ship and buried him next to Flaherty and Janus. More than any of us, Kal had been a scientist, and he couldn't resist trying to solve the puzzle of the gorgon. Whether he had or not we would never know—but apparently the gorgon's neural network had been of a low order, low enough to remain functioning for a while after the organism's death. And there had been enough of a charge left in those deadly eyes to give Framer a freezing blast.

I directed operations from the door of the ship, trying hard not to stare at the upturned gorgon-head. Upton and Morro crept up blindfolded and slipped the gorgon's head into a thick plasticanvas bag, and zipped the top. We stuck a "danger—do not open" sign on it.

Medusa had cost us three men, but we had beaten her. We loaded her headless corpse into the deep freeze for Earth's scientists to puzzle over. It took all five of us to lift the huge thing and stow it away and we were glad to see the end of it. No more monsters we thought; the expedition would be restful from here on.

Until the next day, when Upton found that Sphinx crouching near the ship—.

**BOB SILVERBERG**



# Emancipation

*Universal freedom and liberty had  
been gained—for humans only.*

THE sky was an inverted bowl of ebony dusted with the diamond-glitter of countless stars, like a piece of soft velvet on which some careless jeweller had tossed a double handful of precious gems. They twinkled a little, remote and cold in their distant vastness yet friendly in their familiar constellations.

The moon hung like a swollen peach, a succulent fruit from which some giant had bitten a great crescent-shaped piece and bruised the rest with mighty fingers. Moon and stars shed a faint light, a delicate radiance lost now in the electric glare of the city.

He sat at the window staring into the darkness, a shapeless blob against the darkness of his room. Below him the city sprawled to the horizon, a tangled maze of lights and humming activity, and the low murmur of traffic echoed faintly towards the clean shine of the stars.

From the high window he could see the myriad lights below, the flashing reds and greens of the traffic signals, the twisting ribbons of the main roads, the yellow glitter of countless shops and

houses, apartmens and single rooms. A million flashing signs and points of red and blue, green and yellow, orange and sickly white.

It was as if the whole sweep of the heavens had been compressed, squeezed together and reflected from the patch of earth that was the city. He felt as if he stared down at some deep tranquil pool and saw the glory of stars and moon reflected, multiplied and coloured with harsh tints and hues, and for a moment he felt the sudden urge to leap into that pool, to drown himself in multi-coloured brilliance and to let their lights wash away his troubles.

From the open spaces and public squares fireworks sprang upwards in a sudden shower of golden flame. Bright colours sprang to life, vying with the steady electric glare of the city and paling into insignificance beside the steady burning of the mocking stars.

Red streamers and blue, yellow spangles and green balls of bursting radiance, magnesium white and the orange of summer sunsets. They streamed towards the sky with ephemeral sparkles of colour, then died and fell ashes and glowing embers.

He stared at them, surprised at first, then smiling a little as he remembered what they signified. The annual celebration, the anniversary of the Great Emancipation. On this day ten years before all beings had been declared free and equal. Men and women; white, yellow, black and red, all the races and nations of Earth. Intelligent and stupid, brilliant and dull, human and inhuman.

A rocket ship blasted off like a giant firework from the nearby field, its tall pillar of flame illuminating the area as bright as day. He watched it with wistful longing, knowing that he would never be permitted to ride on wings of flame across the void. The dying light gleamed on his white skin, throwing the room behind him into high relief and accentuating the subtle oddities of his proportions.

His head was a hairless oval, egg-like, his wide-eyed face smooth and without brows or lashes. Beneath the single garment he wore his body was the same, smooth round, like a crude sculpture made by a clumsy idiot.

He wasn't male, of course, nor female, there was no need for him to reproduce his kind. He was sexless, neuter, but a whim of the courts had decreed that his kind should be referred to as being of the male sex. It was a subject for endless ribald jokes.

Little explosions popped from the air as more fireworks

showered down their cargoes of red and green sparkles, and as the echoes died; a step rasped from the stairs outside the room.

He tensed, his eyes wide pools of gleaming darkness then stared at the two men standing by the open door, feeling the stir of familiar panic as he recognised their condition.

There were two of them; a big coarse man and a little wizened runt. They stared at him; their eyes reflecting the dying fire from the fireworks; red and feral looking. They were drunk.

The big man stared blearily around the room.

"Hey you," he called. "You by the window. Got anything to drink?"

"No."

"You sure?" He crossed the room, peering closer at the dim shape silhouetted against the high window. "Hey," he yelled. "Look. It's an andy."

The little runt scuttled across the floor and spat in disgust. "We're wasting our time," he whined. "They don't drink, do you andy? You don't drink, do you?"

He sat silent; wishing that they would go.

"Answer me; can't you." The little man reeled in sudden drunken fury. "Damn thing. Useless to man or woman. They ought to be shot, all of them ought to be shot."

Outside the soaring fireworks sent fitful light into the dim room.

"You heard him," snapped the big man. "Answer him."

"No."

"No what?"

"No. We don't drink."

"Blast you!" The big man swung his hand, the sound of the blow echoing through the silent room. He sat silent, the angry red welts from the blow standing out against the white skin.

"Learn to answer your betters," grated the big man. "If you were human you'd want to fight. Want to fight?"

"No."

"No what?"

"No, sir. I don't want to fight."

"That's better." The big man stared about the room, a sneer on his heavy features. He looked at the bed, a board resting on two boxes, at the rough table and the cracked washbasin. The little man stood by the door, his thievish fingers running over a spare garment hanging on a nail.

"Let's get out of here, this thing gives me the creeps."

Deliberately he tipped over the bed, smashed the table and chair and ripped the garment to shreds.

"Damn monsters, they've got nothing worth taking anyway."

They clattered down the stairs with heavy careless feet, and reeled along the deserted pavement below.

For a long time he sat motionless, staring out into the night, staring at the clean brilliance of the distant stars and the bitten moon. Slowly the city died, the myriad lights winking out one by one and the ranked houses losing themselves in the darkness. When the last of the fireworks had fallen in ash and smouldering embers, he sighed a little and moved.

He straightened the bed, repaired the table and chair and finding needle and thread began to sew the ripped garment.

Soon he would have to report for work, and for twelve hours he would clean sewers, empty garbage and sweep gutters. He would do all the work that men were too proud to do, and while doing it, he would have to suffer their sneers. He was legally free, he didn't have to work, if he wanted he could starve.

As he finished the garment the first rays of dawn lightened the sky. He returned to the window, staring towards the east at the rising sun, and savouring the delicate combination of blue and grey, saffron and soft pink. It would be a fine day.

He sat for a long time staring at the sky and at the hidden stars, the marks of the blow red against the smooth ivory of his skin.

He didn't curse his God, how could he?

But sometimes he cursed his makers.

**E. C. TUBB**

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## Welcome

It will interest many of our younger readers to know of the initiation of a brand new science fiction magazine in this country. Selling at 1/6 the VARGO STATTON SCIENCE FICTION MAGAZINE has 64 pages and is devoted to rather less advanced types of stories than NEBULA; being designed to appeal to younger readers of the field

The Editor of NEBULA bids this new magazine welcome and hopes that it will become a powerful force in introducing many new readers to British science-fiction.



# Cold Storage

*Their educators had forgotten two vital pieces of information—so the Project ended in disaster.*

*Illustrated by Bob Clothier.*

WE left with the bands playing and the crowds cheering. Four men, four women, and two robots, all in a ship which wasn't much bigger than the one they kicked up to the moon one hundred years before. I suppose the powers that be thought it fitting to ship us out to Alpha Centaurus on the centenary of the first Earth to Luna trip. I thought so myself at the time, but the centenary celebrations rather faded into obscurity with this new venture, so I suppose half the point of us going was lost. Anyway, it didn't diminish the ovation we got as the eight of us clambered up the ladder to the air lock and posed for the T.V. cameras. I felt rather proud then as I stood there with Myra's arm linked through mine and her auburn hair billowing over her shoulders and tickling the nape of my neck. I had every reason to be proud, Myra was my wife, my bride of the morning.

Two weeks before they had introduced us: "Myra Gold, meet Alvin Harper, he's been selected as your husband. We've arranged the wedding ceremony for the morning of the flight. Now, run along and get to know each other."

It was just like that, only they emphasised 'the flight', and those words told us that we'd better get to know each other fast and like what we knew, otherwise: 'out you both go on your ear and somebody else takes your place'. We weren't having any of that. When you get the chance of your name going down in the history books as two of the first humans to try for the stars you like and like fast. Well, they pushed us together but they knew what they were doing, they had our psychological graphs and emotional compatibility ratios down to a tee. We couldn't help falling in love with each other, nor could the other three couples who were to accompany us.

The funny thing was, the honeymoons wouldn't start for four hundred years, and then only if Alpha Centaurus possessed habitable planets. Naturally, they didn't expect us to exercise our self-restraint for that length of time. No, they did it for us in a way. We had eight little cubbyholes in the ship, all laid out with a hard, shaped table and the biggest deep freezers you ever set eyes upon. One for each of us, and none for the two robots, they didn't need sleep and they wouldn't wear out in four hundred years so they had the run of the ship whilst we were drugged and frozen solid.

None of us knew very much about setting up house on an alien planet, but the robots would take care of that, too. Robert and Robin we called them, and they knew everything that there was to know, so we were told. You see, when they figured out this idea of sending a ship to the stars, Solar Colonisation Board came up against some snags. People didn't mind shipping out to Luna, Mars, Venus, or even Saturn and living under domes all their lives, but it was a different matter where the stars were concerned. There weren't many who liked the idea of sleeping for four hundred years, knowing that way back home everyone they had once known would be long since turned into dust or mould. The people who did volunteer were mostly cranks, or folks who had a chip on their shoulder about the way things worked back on Earth. The eight of us who were finally selected weren't like that, what we wanted was a taste of the unknown. Come to think of it maybe we were cranks in a way, we were mal-adjusted and we couldn't settle down to an everyday routine like

normal people. Business was a rut in which to get stuck, and home life was a bore, and because we'd shown up the best of a poor bunch on the tests they ran we were the lucky devils, or the poor bastards (it all depended which way you looked at it) who were selected.

It was a happy party which drank the last toasts to Earth in good old water as we passed Lunar Base with its pimple dome on the way out. That is the part which lingers clearest in my mind because it was just like a party, remember we were all just married and the novelty hadn't worn off yet. Jim Harrison was the more sober of any of us, he was the first one due to wake up and check that the two robots were keeping us on course. That was a hundred years ahead but it still had a sobering effect on him and Ann. They sat holding hands whilst the rest of us kicked up a shindy and petted in a mild sort of way.

"Jim," we heard Ann say, "Can't you possibly wake me when you...you get up?"

He shook his head and we all knew what he was feeling deep down inside. The four men together couldn't open one of those chambers once they had been sealed. Only the time lock could do that, or the robots if any special emergency arose. When you woke up and took your spell of duty you would be all alone but for Robert and Robin. You could stand outside the chamber where your wife lay and you wouldn't know whether she was still alive beneath her covering of ice or whether the drug hadn't taken hold and she had clambered out of the box and rotted to death. You just had to wait—four hundred years. And in that time there would be no kind words spoken to you, no dimpling smile or loving caress to help you on your way. All you could do would be to grit your teeth and pray that nothing had gone amiss. Then, at the end of two weeks, Robert and Robin would help, or haul, you back to your grave and seal you in, and you couldn't even kiss her goodbye for the second time.

Hetty started to cry and flung her arms round Lance's neck. He looked up aggressively at us and when he didn't see the expected grins he cooled down and tried to love her back to her normal self. "What if anything goes wrong, Lance?" she sobbed against his shirt. "I couldn't bear to lose you, or think of you without me."

"Lord, Hetty, nothing's going to go wrong. I'll still be here when we land. Don't worry, I won't run off with Ann, or Sylvia or Myra. They'll all be locked away nice and secure."

"Fool, I didn't mean that." But she smiled and he winked over at us. Of course, she hadn't meant it, we all knew that—all but Hetty.

"It's a great pity," Sylvia brooded, "he's got such nice shoulders. Far better than Paul's. Lance, if you promised Robin extra oil for those creaky knee joints of his, do you think he'd let you slip in one night?"

Paul pretended to turn her over and spank her, but from the expression of tenderness in his eyes it was easy to see that they were nothing more than love taps. Besides, she seemed to enjoy it, and it gave Lance's wife another laugh.

It was then that Robert and Robin stamped in and brought the party to a close. They had the general appearance of a man as far as basic form, but they each weighed a couple of tons and their metal bodies gleamed in the lights. Their heads were not needed, the electronic eyes could and would have done their jobs just as well in their chests but when they first started to market robots they found that one with a head appealed to the public much more than one minus a head. Something psychological there, so they tell me. Me, I never went in for that sort of stuff but I suppose they do look more like a human and less like a monstrosity that way.

Robert, or Robin, I don't know which, clapped his hands together for attention. "Will you please leave for your rooms now?" he said, and started to shepherd us out into the long corridor. They were bigger than us, so we went. Not because we wanted to, we didn't, but neither did we want to be picked up and carried like children.

Myra and I were the last two on their list and we made the most of it outside her cubbyhole. At last I let her get her breath back. "Alvin..." she fumbled for words, "how do we manage about children when we get there?"

It was the first time I had ever seen her embarrassed, and the blush became her. It added that touch of colour to her cheeks which her hair stole with its rich tints. It seemed like a fairly elementary question, I was rather surprised that she should ask it. What a thing to have to explain, especially to your wife. "The same as everybody everywhere." I wasn't prepared to go into it fully at such short notice.

She stamped her foot hard on mine. "I didn't mean that part of it, Alvin, be sensible. They tested us to make quite cer-

tain we could have babies, but they didn't make provisions about childbirth. Do you or any of the others know what to do?"

I laughed. "Dear little Myra, you'll have the two best doctors in the Universe at your side all through. Don't worry about that part of it at all. It's when you've got five or six kids treading on your heels all day long that you have to start worrying. Then you'll wish you were back on the ship with a nice long peaceful four hundred year sleep ahead of you."

She looked puzzled. "But who...?"

I pointed down the corridor at Robert and Robin coming towards us. "Those two, they'll make no mistakes. They've been prepared for anything on those tape brains of theirs and what they have once heard they can never forget. They'll do all that man has taught them, and probably a damned sight better than man himself."

She shuddered, and I stopped the moan with my lips. It was the last kiss we had, hard, dry, and cruel. Her fingers dug into my neck and brought blood to the surface as the two robots held her gently but firmly and all three disappeared inside her own quiet room.

Five minutes later I felt the sudden pain of the hypodermic needle enter my arm. Things started to get hazy straight away and they laid me out on my slab inside the deep-freeze unit. "It won't be long, Mr Harper," one of them said. They never did have much idea of time, to them four hundred years was but a passing hour. To me it was almost five lifetimes. I wanted to tell them about that, to explain about time and the number of light years we would be covering, but it was too late. Sleep stilled my voice and made my eyes leaden. And the only chill I felt was the chill of fear, they looked like us humans but they weren't. They never could be like us—never. They didn't even know about time.

I slept.

What did amaze me was the total absence of any dreams. It was just like being in a complete neverness with nothing for the mind to think about. I had intended that I should dream about Myra for the four hundred years sleep, and that would bring her closer to me. But there was nothing. Not even the fullness of her lips, the glow of her cheeks as she blushed, or the richness of her scented hair. There wasn't even another woman to share my dreamless sleep. What a waste of four hundred years!

Waking was hard and painful, the coldness of the unit still wanted me to sleep, and the two robots wanted me to wake. I heard them calling my name from a long way off and the gentle smoothness of their steel hands as they massaged warm oils into my skin.

The pain of returning circulation made me scream as blood coursed through my veins and life slowly returned to my naked limbs. And through it all I knew that I hadn't aged a single day all the time I had been there. I was still a man of thirty-two, but there should have been a figure four placed before it.

Maybe, I thought, those robots do know something about time after all.

It took them about two hours before I was finally able to sit up and take notice of them, and my voice rasped like a file on rusty metal as I asked, "Has everything gone to plan, no accidents?"

"There is nothing to worry about, Mr Harper. We would have woken you long before now should there have been any emergency." I got a bowl of thin gruel to sup as he finished speaking, and I spooned it down slowly. I could have taken it all at one gulp but we'd been told in the school to take it easy with the digestive juices for the first few hours.

It's funny how you can never manage a spoon and soup easily when someone is watching you—even robots. I sucked it off the spoon and made enough noise to waken the dead, and the blessed stuff kept running down my chin. Robert mopped me up every few minutes, and that made it even worse, they were so damned efficient and I was like a new born babe. Hell, they even had to dress me and support me up to the control room forward.

We were on course right enough, with seven days still to go before deceleration started. Centaurus loomed up in the vision screen like a huge bloated orange, and we were lucky, it had a family of five planets circling it.

"We have already decided that the fourth one will be the best suited to your form of life," Robin told me as he leaned over my shoulder and tapped the screen with a long forefinger. That was just to let me know that any of them would have done for him. I felt even smaller than usual as I turned my back on them and snatched the log book from its shelf. I turned to the last entry of all and saw Lance's name tagged to the note at the foot of it.

## TIME OF ENTRY FROM DEPARTURE:

Three hundred years, thirteen days.

THEY woke me up and it was pure hell, but you'll know all about that, Alvin. I've had twelve days in which to do all the checking of course and fuel, not that there was any need. Robert and Robin are so efficient that they make me feel like a moron. As I know you'll read this first and to save you the trouble of reading through my report, I'll let you know here that it isn't worth it. There was nothing unusual to write about. Everything is as expected.

Food is good, after that long sleep and the initial feed of watery soup. They opened tinned veg for me and served up the biggest and best roast I've ever seen. It was swimming in rich, brown gravy, and it makes me even less keen on sleeping off the last hundred years.

Just for the hell of it I tried to get in to see Hetty yesterday. Of course the door wouldn't unlock and neither robot would help me. They stood and watched me with those blank eyes of theirs, and never made a move. I stood outside the door for a couple of hours, just day dreaming. I know I'm all right, but is Hetty? There's no way of telling as you'll find out for yourself. But you, Alvin, are lucky. I have a hundred years to wait before I'll know, you have only five days and then all those who are coming out will be out. In the meantime, don't do anything foolish. Behave yourself and don't eat all the food.

I'm going to dream about the roasts while I sleep, and when I wake up for the second time I warn you I'll be hungry.

See you at Centaurus,

Lance Varey.

There wasn't very much point in adding anything to the log book there and then so I made my way down to the drive chamber with Robin and Robert and checked on the remaining fuel supplies. There was still enough copper wire left on the coils to provide energy for deceleration and a half way trip back to Earth. They had taken no chances when they fitted us out and it gave me a sense of well being to know we could coast round each of the five planets at our leisure and select the one best suited to our way of living without the fear of being stranded in the middle of interplanetary space.

It was twenty-four hours later that I had my first taste of Lance's much written-about roast dinners. Half of it went down very well, the remainder didn't. There was a sudden sharp crack as my teeth came down and started working on what was left of the meat. Pain made my head spin so that I didn't know whether I was on my head or my heels. I opened my mouth and spat out what I had left onto the side of the plate. A small white bone came out of it, and half a molar. I had the grandpop of all toothaches, past and present, and I wouldn't be surprised if I could also include future in with it. I was bent over the table edge, holding on for dear life and writhing and moaning in agony. Robin, with the true doctor's instinct, had a thermometer in my mouth in a flash and his warm, steel fingers on my pulse.

The thermometer followed the food and skidded across the table top.

"Toothache," I managed to gasp, and then pain made me close my mouth in a hurry.

There was a delay of about twenty seconds as they searched their tapes for: Teeth. Number and purpose of. Cleaning of. Decay. Teeth, ache of. Probable causes of aches. Fillings. Extractions.

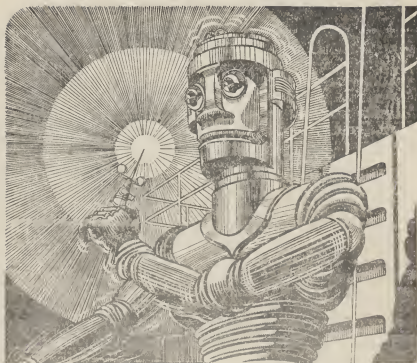
I heard them clump off, and then, after what seemed like an hour but was probably only seconds, they were back. "Lean your head back and open your mouth," Robert said. "This won't hurt you a bit." He jabbed a needle in my gum beneath the broken molar and waited for a moment for the cocaine to take effect and my tongue felt as though it didn't belong to me. My lips were the size of door steps, and had about as much feeling.

A pull and a cracking sound in my ears as the roots tore free, and Robert shoved the tooth in my hand. I looked at it for a moment and ran my tongue over the hole it had left. I couldn't feel anything, not for two hours when the pain would return. "Very pretty," I told him, and gave it back. He wanted to have a look at the rest of my teeth but I wasn't giving in to his robotic zeal. "Go to hell," I snapped, and closed my eyes.

He went somewhere, I don't know where.

Jim Harrison was the next one to be released from his frozen state, that was on the fourth day after I'd had the run of the ship. I was glad to see him too, even if he wasn't capable of much until he got some strength back. You can talk to robots and get intelligent answers, sometimes more intelligent than that of a man, but it isn't the same. Their voices have a hard metallic ring to them,





and you know that they are merely reeling off their answers and knowledge from the tapes inside their chests. They don't show much initiative, or any depth of feeling. That's because they are incapable of emotion.

After Jim came Lance and Paul, and the nearness of our goal seemed to have a quickening effect on their powers of recovery. Centaurus was but five days flight distant, and the fourth planet three days. There was a lot to be done before the women awoke, (the planners' idea was to let us men do all the hard work first), and as soon as the last two out of their cubbyholes could stand without feeling dizzy, we worked like devils.

It wasn't really too bad working our guts out, until we reached the aft storage compartments and started to revive the livestock. The larger beasts came through the ordeal pretty easily, the freezing seemed to have little effect on them, but the hens and roosters were a different matter. That was a bit of a surprise, I would have thought it the other way around. I read once that a hen

survived for a couple of weeks with its head cut off, but I guess that wasn't the same as freezing. We had to have them for the eggs and breeding purposes and we spent the best part of twelve hours raising a spark of life in them. That's how it usually works out, the smaller a thing is the harder the job.

"Hell," Lance said, patting his stomach. "I could eat them as they are, feathers and all. Robert, see about something substantial for us to eat. No mush, real solid food, like another nice joint, eh?"

If Robert could have sighed a sigh of weary resignation I'm sure that was what he would have done, but he couldn't, he just bowed creakily and wandered off with Robin to the kitchen.

"You know," Paul said as he stuffed his mouth with roast and gravy, "it must be about time for the ladies to put in an appearance. There'll be nothing left for them to eat if they don't come out soon."

The point of supplies lasting out until we were fully established on our new planet hadn't struck me until then, and I started to wonder how we would make out. "Robin," I called, "what are the food supplies like? Still plenty to tide us over the first few years of experimental farming?"

Robin came back with the noncommittal answer I should have expected. "It all depends on how much you eat, Mr Harper."

Well, when you get an answer like that there is nothing else for it but to have a look see for yourself. Jim, Lance and Paul tagged along behind as we went aft to the main refrigerators. The door opened after a struggle and we found the place full of poultry and sides of meat. Nothing seemed to have been touched since the day we left Earth, and everything was covered with thick ice and hoar frost.

The hell of it was we had been tucking into something that resembled meat, and none of it had gone.

It struck the four of us at once, and I for one brought back my last two meals.

It didn't take us more than a couple of winks of the eye to get back to the control room where Robert and Robin were clearing away the remains of the meal. "Where are the women?" Lance yelled as soon as he saw them.

They looked at him with their large blank eyes and never said a word. At that moment Myra walked in by herself, all dolled up in fresh powder and paint. I grabbed her and held

on tight. "We've been worried to death about you," I said, burying my face in her hair.

She ran her fingers up and down my spine. "Why?" she asked. "I couldn't run away if I wanted. I've been up for ages but I had to make myself pretty for you. I swore Robert and Robin to secrecy." She looked across to Jim and Paul, "Where's Ann?"

"You mean you haven't seen her, wasn't she with you?"

"No, nor Hetty. I couldn't find them anywhere. I thought they must have come straight to you."

Paul and Jim rounded on the robots. "Where's Ann," Jim yelled, pummeling Robert's chest box. "What in God's name have you done with her?"

The rumble started in Robert's throat and the words, when they came, seemed to have a chill all of their own which equalled the cold of the ice box. "The women are for the men, that is what we heard on the take-off field. But," he pointed at Myra and I held her tighter, "there was enough to go round without this one."

There was a roar and a babble as the three men flung themselves on the two robots, screaming, biting, kicking and crying—all at the same time. Robert and Robin picked them up like toys and looked at me. Their super-sensitive hearing must have picked out some sense from the screams and curses, "Please, Mr Harper, what is God? And what is Sex?" asked they who knew all.

I didn't tell them, I was too busy holding on to Myra and tonguing the place where my molar had been. One little bone: Sylvia? Ann? Or Hetty?

I just didn't know.

**DAVID S. GARDNER**

## THE NEXT ISSUE

At the time of writing there is such a vast amount of top-line stories to hand that the exact contents of the eighth edition of **NEBULA** are not finally decided upon.

However, they will be chosen from stories of varying lengths by authors who are well-liked by all our readers, like

ERIC FRANK RUSSELL      WILLIAM F. TEMPLE

E. C. TUBB      J. T. McINTOSH      F. G. RAYER

and many others to make an issue well worth waiting the next two months to read.

## Pilot's Hands

*Certain markings on the Moon's surface have always been a mystery. No one could have imagined that they were also a menace . .*

*Illustrated by Tony Steele*

GLUCK, I remember, following Dunne, wrote a two-volume work plus a mathematical appendix almost as long purporting to prove that the "I-have-been-here-before" feeling was no trick of parts of the brain being temporarily out of step, but genuine, if half-conscious, precognition, evidence of a wandering of the mind along the time-line ahead of the physical body.

I don't believe it now and I didn't believe it then, when I was permitted my first sight of the atomic propulsion unit to be fitted to the *Endeavour*.

It was just a truncated cone, twenty feet tall, dwindling upwards in diameter from perhaps thirty-five feet to a little under thirty. Top and sides were perfectly smooth. The bottom I couldn't see—it rested on the concrete floor.

There was no framework about it. The windowless walls of the circular room bore no instruments of any kind. The thing stood alone in the centre of the room as if it had been laid like an egg.

The Harwell boy whose name I hadn't digested—he was of Polish refugee stock—stood waiting for me to exude rapture, surprise, and admiration. As I showed no sign of it, he turned prompter.

"Isn't it a beauty?"

"Never go by outward appearances," I said. "Let's have a look at the works."

"He stiffened at my brusqueness. "In an atomic reactor there's not much that one can call 'works'. Merely a few sliding parts, and if they're..."

He fumbled for a word.

"Slid?" I offered.

"Moved," he said, frowning. "If they're moved, the reactor starts..."

Again he sought the *mot juste*.

"Reacting?"

"Working, and then it's fatal to be exposed to the radiations."

"I wasn't exactly planning to put my head inside the oven," I said. "I assumed that the thing could be opened by remote control and observed by TV. I understand that's the normal drill. But then, of course, I'm not a technical type. I'm just a pilot. I only know what I learn from the funnies. I could be out of date."

He winced slightly under the barbs, and then stiffened again so rigorously that I feared he'd get cramp. I regretted the sarcasm. Whistler could paint, in his time. I never could. Whistler had had a mother. I never knew mine. But I could always match Whistler in the gentle art of making enemies.

A bad trait, that, in a space pilot. It should disqualify him if he can't control it. It doesn't matter on the trans-Atlantic ferry-rocket run. That trip doesn't last an hour and the pilot sits for'ard in his little cabin—alone. But in a spaceship the trips are a deal longer and there's no segregation.

When the ships start going regularly beyond the Moon on the months' long trips to the planets—and it won't be so long now—social misfits like myself may find it hard to get a job on them. To be really efficient a crew must be able to hit it off all round.

"As it happens," said the Harwell type, coldly, "the HAPU is sealed tight and can only be opened and examined here by certain qualified inspectors, and that's not what I'm employed for. It isn't just that the mechanism is secret, though of course it is. It's also a precision job, and any amateur attempting to repair it is likely to damage it beyond the repair of anyone."

It was then I had the "I-have-been-here-before" feeling.

Yet this was my first trip to Harwell. I didn't believe the Gluck-Dunne stuff because each time I'd had this kind of experience before I'd never failed to pin down the cause, sooner or later. It always turned out to be an imperfect recollection of some past situation which only roughly paralleled the current one.

So I chased back along the dusty alleys of my memory. Way back I turned a corner, as it were, and saw a picture of myself as a kid asking my grandpa if he could show me the engine of his car.

"Sorry, Franz," he said. "You see, it's a Rolls, and all Rolls' bonnets are sealed tight and can only be opened by qualified inspectors. The engines are beautifully made, and the makers don't want any old people tampering with 'em."

I brought myself back to Harwell with a jerk. I scowled at the young technician.

"What in fact you're telling me is that if I damage this thing landing the *Endeavour* on the Moon, I'm not to attempt any running repairs but just carry it back under my arm for one of your inspectors to have a look-see?"

"Something like that," he said, without humour.

"Very well, then, let's have a chat with one of your inspectors."

"There's no point to it, Mr. Verlaine. He wouldn't be allowed to tell you any more about the Harwell A.P.U. than is contained in that sheet of instructions I've already given you."

I retrieved the sheet from the pocket I'd crumpled it in, and read aloud. "To start the reaction, press once the button marked 'Start'. Reaction ceases when the adjacent button marked 'Stop' is pressed once. The damping effect is regulated automatically by the Earth radar altimeter and the lunar radar altimeter respectively." It seems to me that apart from starting and stopping the darned thing, a pilot is so much dead weight in this ship."

The Harwell lad looked past my left ear and said nothing.

I went on, acidly: "Well, let's allow that he's permitted to use his skill on a couple of occasions. At least, it's up to him to judge the right moments to press the buttons. That almost makes his trip worth while."

He continued to look past me. A spasm of malice twisted a corner of his mouth.

He said: "It doesn't matter if he misjudges—or even if he

forgets to press the button at all. If they're not pressed within a second of the proper moment, a relay clicks over and switches the controls from manual to automatic. We can't afford to take chances, you know. This A.P.U. is our only prototype and it cost the Earth."

I became suddenly cool, tense, and alert, the way most space pilots do when danger nears. Those who lose their nerve or temper at such times soon also lose their lives. But this was no mere split rocket tube or an unexpected, uncharted meteor shower. The danger I smelt was not of losing my life but of losing my livelihood.

I bluffed. "I shouldn't dream of risking damaging your precious box of tricks. It seems able to take care of itself. Let it find its own way to the Moon. I'm clearly redundant. I can only resign from the Service."

"Resign?" echoed a voice with a crack of authority about it that set my hackles up right away. "Resign? A pilot can't resign from the Space Service any more than a bo'sun can resign from the Navy. You're under contract, my man, as well you know."

Yes, I knew. I was under contract for the next two years. My fear was that it wouldn't be renewed. I'd cropped my hair but the grey filaments still glinted. And now there loomed this shadow of a robot pilot.

I turned. Three men had entered through the door behind me. They stood there against the curved wall. The foremost was a broad-shouldered six-footer, very erect despite being in his sixties. He was grinning—he had one of those down-turned mouths like a shark's. He was also frowning at the same time, and the effect was formidable. I'd seen the face somewhere before, probably on TV. I wished it were on TV now, so I could switch it off.

Behind him was a rangy, sandy-haired fellow, young, with quizzical blue eyes. I rather liked the look of him.

And behind him a small sallow-faced chap, melancholy-eyed, stood hunched as though he didn't want to take up too much room in the place. He looked as if he'd never speak unless spoken to. The voice that had spoken was not a youthful one. Therefore, I guessed it belonged to the big tough. I addressed him.

"Don't 'my man' me. I'm not your man, nor ever likely to be."

The Harwell type looked shocked.

The big man didn't change his expression, which was a pity. "You're Captain Franz Verlaine?" he asked, still grinning like a fiend.

"I am."

"Then you *are* my man. My name is Marley. I'm commanding this show. This gentleman—" (he inclined his head towards the sandy fellow) "—is Dr. Thomson. He's the medical man on our trip. He's a good all-rounder: an experienced bacteriologist, mountaineer, first-rate shot, and pretty good at bone-setting. I hope we shan't need his medical services—eh, Thomson?"

Thomson reached forward and I shook his hand and said: "Hope we shan't need your shooting ability either."

He smiled and winked.

"This," said Marley, noticeably omitting the space for sex and vulgarly jerking his thumb behind him, "is Pettigue. Government prospector, geologist, metallurgist, qualified surveyor, explorer—of sorts. Been all over the world. Now he's been assigned to the next world—ha, ha."

It was I who had to reach for Pettigue's hand, and when it lay in my own like a lump of putty his lower jaw moved. I thought he was about to speak, but I expected too much. He was merely changing the position of a wad of chewing gum. His jaw continued to move gently as he chewed. It was about the only sign of life. When I let go his hand, it dropped to his side as limply as that of a corpse before rigor mortis had set in.

Marley obviously had no time for him, and I didn't feel inclined to spare much, either.

Then Marley introduced his companions to the Harwell boy.

"This is Dr.—" (I still didn't get it. Something like 'Zignawitch'. In this chronicle Zignawitch he will have to be. "He's one of the brightest young men here. My friend Howard—the Minister of Supply, of course— expects big things of him. Confidentially he thinks he'll be running this establishment before he's forty. The HAPU is largely his baby.")

I hadn't known that. I resented Zignawitch's evasiveness even more.

Dr. Thomson spoke, with an Edinburgh burr that I shan't attempt to render. "How does it work?"

And Zignawitch, confound him, opened up his small heart to this group he felt to be big bugs. He said that the HAPU solved all the problems that had hitherto prevented the building



of atomic rocket-ships. The problem of rapid and efficient heat transference to the propellant (hydrogen in the case of the *Endeavour*) had been met by a method of direct contact with the fissioning element. And the old problem of an impossible weight of shielding to protect crews from the radiations of atomic reactors had also been overcome.

Zignawitch spoke only vaguely of the later solution. I gathered that all particles flying in the direction of the body of the ship were (after they'd heated the hydrogen) caught by a deflector and flung out harmlessly into space. This deflector wasn't just a curved electrode, like that in a cyclotron which bends back the paths of high-speed particles. It was a pattern of magnetic fields which performed the same deflecting duty far more effectively.

Zignawitch said little about this magnetic field pattern, but not—plainly—because he didn't understand it. He wanted to keep its principles sealed in that gleaming conic section.

"You see, gentlemen, Harwell's taken care of everything," said Marley.

"What about the take-off?" I asked. "Squirting the atmosphere full of radio-activated hydrogen isn't going to do the local inhabitants much good."

Figuratively, Zignawitch pounced on me. "The ship will be launched from an uninhabited Pacific island. It would have no more deleterious effect on atmosphere or people than an atomic bomb exploded under test conditions."

I shrugged.

"Nevertheless," he went on, with rather a pained look at Marley. "the Government isn't prepared to take even that minute risk. They insist that the HAPU is not to be brought into play until the height of one hundred miles is reached, where atmosphere is negligible."

"The P.M. insisted on that—not I," said Marley quickly.

I said interestedly: "And how do you propose to get the *Endeavour* up the first hundred miles—fire it from a catapult?"

Zignawitch ignored me.

"How?" Dr. Thomson pursued.

"By a chemical—er—" fumbled Zignawitch, looking sullen.

"Booster rocket," I supplied, quietly, and saw I was right.

"So that's why a pilot is needed, after all."

"Not in my opinion," said Zignawitch. "The take-off can easily be radar-controlled from the ground. The dropping of

the booster can be automatic. The HAPU is automatic, anyway."

"Look here, son," I said, "you're right off your own territory. If ground control is the best way, why hasn't it always been used? Don't answer that—I'll tell you. It's because no instruments you back-room boys have cooked up have ever been near as sensitive as these."

And I held out my hands. Zignawitch avoided looking at them.

I said: "No servo-motors can do what these can do—the hands of a space-pilot. These can feel. When they're on the controls, those controls become extensions of my nerves. Oh, I've experienced it a hundred times, testing controls that your meters say are okay—but my nerves tell me are not. My reflexes are one hundred per cent reliable. Your automatic gadgets, at a generous estimate, rate no more than ninety-five per cent accuracy. You and Marley have forgotten something—the Prime Minister in his youth was a jet-plane test pilot."

"Well hit, sir," said Dr. Thomson.

Marley said: "Like your spirit, Verlaine—looking forward to having you with us. You should be good company. But I side with Zignawitch. I said as much to the P.M. The *Endeavour* will make space-pilots obsolete—you'll see for yourself. The P.M. is a little sentimental—perhaps all great men are. We must indulge him."

"Damn that!" I exploded. "I'm not riding as a sort of mascot—"

"Silence!" roared Marley. "Stand to attention."

"Go to hell," I said.

Marley took a deep breath, his face very red. Carefully, he reached into an inner pocket, withdrew a folded paper. "Read that," he said, unfolding it and thrusting it at me.

I didn't need to take it from his hand. A glance told me I was sunk. It was an appointment signed by the Prime Minister and I was under the orders of Colonel Richard Marley. Nevertheless, Marley was not an officer in the Space Service, nor even from his old military days, as he had a right to.

"All right," I said. "But remember this: you have no commission. I am not bound to salute you. I'll carry out your orders—but heel-clicking is out. I'll face a court martial first. That's how we stand."

He glared at me with real hatred. I'd made another en-

emy. But there wasn't much he could really do about it, and he knew it. He growled something under his breath, stuffed the paper viciously back in his pocket, swung away from me and announced to the others: "Now, this show is likely to begin sooner than you may think. Confidentially, my friend Howard has told me that it's slated for the end of August..."

Either Howard or his confidant had got hold of the wrong end of the grapevine. It was the Ides of the following February when the seaplane carrying the four of us alighted on the lagoon of Peniwak and we saw the *Endeavour*, complete, nose up, ready to go, standing on the hill in the centre of that lush isle.

By that time Thomson and I were good friends, though he was thicker with Marley than I liked, and so I didn't wholly trust him. He was rather superficial, too, and given to horseplay and silly practical jokes. He never seemed quite to have grown out of the way of the medical student rags which he used to lead—and he told me about them wearisomely. I didn't mind that so much as his being two-faced. Perhaps that's too condemnatory. But he was certainly all things to all men.

Marley and I continued to loathe each other. There's a dislike born of misunderstanding, but this wasn't like that. Indeed, I understood him too well. He knew that and hated me for it.

Yes, I'd seen him on TV in political debates. He was M.P. for Dunhill East, special consultant to the Cabinet on mineral matters, managing director of the Livermore steel combine and of half a dozen big gold mines.

I'd discovered that our main purpose in trying for the Moon wasn't for national glory, nor for the benefit of science, nor even—directly, anyway—for military advantage. Someone had persuaded the Cabinet that it was likely that the rarest minerals—naturally, uranium and iridium were among those mentioned—were lying around on the lunar surface, apparently thrown up by volcanic action, just waiting there to be picked up. And that the super-efficient HAPU would make the conveyance of them an economical proposition.

That someone was, I'm certain, Marley.

He had ambition, courage, and a limited, commercial sort of vision. Also, he was a bully, a snob, a fool, a power-seeker,

a born string-puller, sly as a lawyer and without conscience, pity or humour. And he was the biggest know-all I ever met. He could be told nothing—to him his opinion and fact were one and the same thing.

He still liked to air the role of a stand-no-nonsense disciplinarian, but Thomson and I cramped his style by ignoring it. So inevitably, little Pettigue got the full brunt of it and seemed petrified every time Marley barked at him.

It was known to the technicians on Peniwak that we were not a happy party. And in view of what happened later I'm not concealing that fact. The fates which smote the party might have spared it but for certain defects of character in us.

I remember vividly a moment in the evening of that thirteenth of February in Peniwak. The four of us stood at the base of the *Endeavour* while the red sun floated on the rim of the darkening sea like a bright medicine ball and struck crimson fire from the highly reflective hull of the ship.

The Moon was rising like a golden plate in the east.

And suddenly I felt what tiny creatures we were—in comparison scarce bigger than the humming insects in the jungle about us—to dare invade the solemn privacy of the great aloof gobes of heaven.

This realisation of something we had in common—smallness facing hugeness—impelled me to glance round at my companions with almost a friendly feeling. In that we were fellows, if nothing more.

They were standing very still in the red light, as still as the ship towering over us.

Thomson. Pettigue. Marley.

I hadn't the slightest premonition that two of them would never come back alive. Or dead.

We took off three days later. It was in the neighbourhood of my four-hundredth take-off, and there was nothing particular to record about it. The first hundred miles went smoothly enough—more smoothly, I hoped, than if I were not at the controls.

The moment the booster parted from us with the gentlest of kicks—I felt it and scorned to glance at the instruments for

corroboration—I pressed the HAPU “Start” button before any damned robot mechanism had the time to collect its wits. We began to accelerate like a dream. I had to admit that the steady hydrogen efflux, reeling out like silk, drove us up a path noticeably less bumpy than those I knew from the often wayward chemical fuels.

It so happened that we were to pass near the Commonwealth space-station circling in its orbit a thousand miles out. “Near” meant within fifty miles. The American and Russian stations were around the other side of the globe, watching each other as well as the Earth.

I picked up our station in the TV telescope. It showed on the screen like a pearl gleaming on black velvet. I regarded it fondly. I’d helped to put it there, the first foot-hold hewn out of space. One hundred and eight trips I made, ferrying up my small pay-load of parts.

I wasn’t the only one, of course. Sykes did thirty-seven trips before his fuel tanks exploded and he and his ship came down like confetti over Salisbury Plain.

Brain died on his twelfth trip, when he was still green—overshot the orbit and finished up in an orbit of his own a couple of hundred miles further out. He’d misjudged fuel consumption and hadn’t enough left to check his speed and fall back. He’d been circling for five days when I reached him. I reckoned he’d suffocated not more than an hour before I arrived, and it damn near broke my heart.

Eleven space-labourers had perished fitting that 200-foot wheel together in the void—from being crushed accidentally by the inertia of large segments on the move, from broken life-lines and drifting away unnoticed, and from a ten-miles-per-second nickel-iron bullet through the vitals—for meteors accounted for six of them.

And all this sweat and sacrifice—for what?

To establish that the Martian “canals” are natural fissures in a dried-up world. That Jupiter has fifteen moons. That the universe is far larger than we’d all supposed—for the tenth time. That the streaks radiating from Copernicus and Tycho are definitely metallic.

And to observe the state of the world’s weather and make the same old wrong predictions about what it would do next.

The real reason for the project had now been fulfilled. The station was intended originally to be the jumping-off place for

a chemical rocket attempt to reach the Moon. Somewhere down on Earth that great rocket lay in ten thousand pieces waiting, vainly, to be ferried up and assembled. I'd counted on a five-year contract for that job—at least. And now it was all scrapped, and I likely to be scrapped with it. The invention of the HAPU had by-passed it, the station, and space-pilots generally.

I felt sad.

"Anyone want a look at the space-station?" I said.

Marley shrugged. "Seen it from the inside half-a-dozen times."

Thomson came over, peered briefly, said, "H'm—looks like a liver pill" and returned to his bunk.

Pettigue lay silent on his bunk, eyes closed. His sallow face was slightly green.

I watched the gleaming bead of the station dwindle to a pin-head and get lost among the stars. We were now outside the orbit where Brain's derelict still circled, and further into space than any man had been before. I should have felt excited. In more congenial company doubtless I should have. The indifference of my companions, one from insensitiveness, one from laziness, one from spinelessness, damped my spirits.

I went over to Pettigue. He'd never been above the atmosphere before. I hadn't been too happy on my own first trip, so it hardly became me to be contemptuous.

"Not feeling too good, Pet?"

He opened his eyes. They held no more expression than those of a fish.

"No. Feel a bit sick."

Without looking up from the map desk Marley growled: "How can you feel sick when you haven't any guts to feel sick with?"

For the first time I saw life come into Pettigue's eyes—living hatred. Just a flash and it was gone.

Dr. Thomson said idly: "It's only space-sickness. Want a stomach-settler, Pet? I've got some cute pills."

"No, thanks," said Pettigue, gruffly, and Thomson settled himself more comfortably.

"This is the first time I haven't had space-sickness myself," I said. "Once the old chemical rockets had reached orbital velocity and stopped firing, my inside would go all to hell. Even milk gave me indigestion. I don't know how you can get the feeling that a heavy lump is stuck in your chest when everything's

'weightless'—as they call it—but I always did. It's a real pleasure to be able to walk around like this and to drink from a glass, believe me."

For the constant and gradual acceleration of the HAPU provided a fair substitute for gravity.

Thomson snored gently, Pettigue's eyes were closed again, and Marley ignored me.

I sighed. For the sake of someone to talk to, I flipped on the radio and yarned with the operator at the space-station. There wasn't much I could tell him about our progress that he didn't know already from the radar trackers, either the station's or those at Peniwak, but I thought he might be pleased to hear that we were all still alive—I'd begun almost to doubt it myself.

When I'd signed off I looked up and found Marley's battered face turned my way with a peculiarly intent expression. I felt uneasy.

He said quietly: "Pretty friendly with that chap, aren't you?"

"Bill Crosby? Yes, he was on the pilot's course with me. He failed, and went on the station staff—he wanted to get into space somehow."

"I see. Well, in future you must not radio information that I haven't vetted first. I'm not worried about your friend Crosby. But radio waves go everywhere, and you must remember there are other space-stations besides ours."

Nettled, I retorted. "What do you think I am—the village gossip?"

Marley gave his ugly shark's mouth grin, then walked over and regarded Pettigue closely. The little man seemed to have dozed off. Thomson was still snoring. We'd had a sleepless twenty-four hours before the take-off, owing to endless hitches, so it wasn't surprising. I felt pretty tired myself.

Marley came and sat beside me, spreading out the map he'd brought.

"I've changed the plan slightly. You know we were to land here?"

His finger indicated the area on the Mare Nubiam which the Lunar Section of the B.A.A. in conjunction with the R.A.S., had finally agreed offered the best bet for a variety of surface minerals.

I nodded.

"Well, instead I've decided we land here."

He put his little finger a little to the east of Tycho. I looked at the jumble of craters there, so close-packed that they were interlocking, and said: "Why pick what is obviously the worst landing spot on the Moon?"

"You mean you're frightened to try putting her down there, Captain?"

"Too true. I'm the best space-pilot in the business, but even I can't land a ship on a mountainside. There's not a flat spot anywhere around there except inside Tycho itself—I could land it there, if necessary."

"No, that won't do. Tycho's walls are 12,000 ft. high. We'd waste days climbing out if we ever did it without killing ourselves. Tycho's streaks don't originate in the crater but at this point outside."

"Why this sudden interest in Tycho's rays?"

Marley looked at me narrowly. He seemed to decide something, then said: "I'm going to tell you something confidentially."

"From your friend Howard?"

"No. I've discussed it only with the P.M. When I was last in the space-station I saw a report on some observations just completed on the Tycho rays. They'd been experimenting with polarised light, and they'd got a pretty good idea of the nature of the streaks."

"Yes, but that's not new—we all heard the old volcanic ash theory had been torpedoed. They're some sort of metal."

"Ah—but what sort of metal?" Marley's voice dropped to a whisper. "This new gadget of theirs indicates that it's almost certainly gold."

I raised an eyebrow, reflected, and let it drop. "Suppose it is?" Even if miles of 22-carat gold is lying there for the picking up, there'll be precious little profit in transporting it to Earth. Gold isn't worth all that much."

"Isn't it, Captain? You can't tell me anything about the value of gold. I began my career in a goldmine. Now I own that mine and control six more. Transport is expensive just now, admittedly, but there can still be a margin of profit, at that. And when the HAPU is mass-produced . . . Just take a look at these figures."

I looked, but I am no accountant. He did his best to explain them, but they still didn't convey much to me. But plainly he'd convinced himself that a big thing could be made of this lunar



goldmine—if it existed—and he wanted to get in on the ground floor.

I let him run on and I learned a lot of things about Marley that I hadn't known. He'd had a thin time as a kid, and always resented it because his grandfather had made one of the biggest strikes on the Yukon in the gold rush days and had been bamboozled out of it by legal trickery. By some oblique reasoning, Marley figured that he himself had therefore been robbed of his rightful inheritance. And that included entrée to the big houses and the exclusive clubs where all the people who matter for-gather. It seemed that he'd been snubbed plenty by that class.

As a young man he became obsessed by the idea of emulating his grandfather's lucky strike—and holding on to it. He went to West Africa, worked in the goldmines, did some prospecting himself, discovered nothing except that he was a phenomenally lucky gambler in other ways: with cards, then with goldmine shares. He gained control of his first mine after two years of hard labour and six weeks of successful speculation.

Inevitably he moved into the circles of power where he felt he truly belonged. Yet he still had one regret. He'd not struck gold in the literal way, as had the ancestor whose memory he obviously revered. And he meant to fulfill that old ambition now.

He didn't tell me all this because he liked me. He wanted to use me.

"So you see, Captain, you've got to land near the origination point of those rays. I'm pretty sure there's a well of gold there from which the streaks flowed long ago like lava."

"And I'm pretty sure there's not. Those streaks run for hundreds of miles, dead straight, regardless of the contours of the territory. They couldn't have flowed like that."

"Okay, then, Captain—they were *squirted* out by a volcanic explosion or by the impact of a great meteor. That's the theory of your friends in the space-station—and, by the way, I had to clap an official gag on 'em before I left, for reasons of state."

I continued to hedge. "Copernicus and Kepler have the same sort of radiating streaks. The country is flatter in their region—"

"I've always believed in going straight to the heart of the matter, Captain. Tycho's by far the biggest and most important system. Also, it's the one your friends concentrated on, and the only one they had any opinion about."

"Well, I can't do it."

Marley began to flush. "I'm commanding this expedition. I'm ordering you."

"Does the Prime Minister know about this order?"

"Of course."

I looked hard at him and he stared straight back at me. That didn't mean a thing. A practised liar could outstare the Gorgon.

"And you won't allow me to check up about this over the radio?"

"No. I told you why not. Nothing must leak out."

I noticed the hand by his side was opening and shutting nervously. I felt quite sure then that he was trying it on.

"I refuse," I said. "Now you can do what you like."

The hand clenched shut and stayed that way. I thought he was going to take a poke at me. But he remained very still.

"All right," he said presently, in a strangled sort of voice. "You're relieved of your duty, and I'll see you're put under arrest the moment we land back on Earth. The ship can look after itself through the automatic system—probably more safely. Zignawitch and the P.M. were quite right—you're unnecessary."

"I thought you said the P.M. wanted me and you tried to argue him out of it?"

Marley gave a cynical hoot. "Ah, yes, your jet pilot P.M. There is no sentiment about him, my friend, despite his age. Whoever is useful is in, and whoever is not is out. That's how he thinks. Forget what I said—the truth is that it was I who had to pull for you. You've got me to thank. How could we alter course and land somewhere other than the predicted place without a pilot? I persuaded him you were essential to our plan."

"Are you sure it wasn't just *your* plan?"

Marley scowled. "I've said my last word on that."

I considered. "Now, listen," I said, presently. "I believe you talked the P.M. into my coming, against his inclinations. I'll accept that part of it. But I don't think you told him a word about your gold theory. Why? Firstly, because he mightn't have believed there was anything in it. Secondly, because he would have thought gold unimportant beside, say, uranium. Now, here's a proposition. I've got to land the ship on the Mare Nubiam, because that's our mission—we're not on private errands. In any case, I'm not lying when I say the Tycho region is impossible. But see here."

I traced a line on the map. "That's one of the largest

streaks, and it crosses the Mare. I'll set her down near enough for you to prospect. Meantime, we'll scout around the area assigned to us."

He demurred a bit, said the streaks were pretty thin, and perhaps no true indication of what might be found at the focal point. But soon he saw that he could hope for nothing more.

So I was re-instated.

He went to his bunk and immersed himself in a paper-backed novel he'd brought along. From its dog-eared state I guessed he'd read it many times before. In the light of my new understanding of him I couldn't resist a smile. It was Robert W. Service's *The Trail of '98*. Queer fellow, Marley to be so completely in the thrall of a youthful romantic dream. Yet if none of us had cherished such dreams this ship would not now be hurtling towards the Moon. It wouldn't even exist. Man would have stayed sensibly and soberly on his native planet and grown cabbages.

The Moon trip lasted just over three days.

Three days cooped up in one cabin with three other people and next to nothing to do seems like a lifetime. I slept some of it away, but there was always plenty of time left to think, and little to think about except my companions. Near the end of it my feelings towards them had undergone some modifications.

I'd grown tired of Thomson's schoolboy pranks. Twice I found drawing pins on the pilot's chair—the hard way. Pettigue was really sick when he drank a mug of tea and discovered that the "sugar" Thomson had put in it was actually salt.

The doctor seemed to have been born without a sense of responsibility. The day I looked at the altimeter and yelped to find it indicated that we were about to crash on the Moon, and then found Thomson had fixed the needle with a small magnet stuck at the back of the dial, I blew up. I told him that if he did a damn-fool thing like that again I'd punch his nose. He grinned and said I had no sense of humour.

But afterwards he left me alone, and Pettigue and Marley had to put up with his idiocies. Pettigue hated it, but Marley didn't seem to mind. He liked Thomson, who came from a wealthy family and knew a lot of Marley's society pals. I was pretty sure Thomson had been wangled on this expedition by

Marley's influence. However, Thomson had one qualification I lacked—an equable temper.

If I liked Marley a degree more than I had, it was only a small one. We still bared our teeth at each other.

I remember once he tried to pick up the lunar map and it seemed glued to the desk.

"One of your gags, Thomson?" he asked, with his horrific smile.

Thomson denied it. Marley pulled at the map, tore it, and found that a piece of well-masticated chewing gum had been anchoring it to the desk.

He rounded on Pettigree like a tiger.

"Yours?" he snapped.

"Sorry," mumbled Pettigree. "Forgot where I'd put it down."

"From now on," said Marley, "it is forbidden to chew gum on this ship. Filthy habit. This isn't a cattle truck."

"But it—it helps my nerves," protested Pettigree.

I came to his aid. "Lots of pilots chew gum for the same reason. Besides, before now I've known a wad of wet gum to come in useful in an emergency. Just the thing for plugging meteor-dust holes."

Marley scowled at me. "Keep out of this, Verlaine."

"*Captain* Verlaine. And don't pout and scowl at me. You look like one of those childish old dictators—scared of people really, and trying to scare 'em back by pulling an ugly face."

"Shut up, you continental mongrel!"

Marley had learnt of my mixed and obscure family background in Alsace-Lorraine, and liked to try and tread on my corns. It hurt rather, and so because of that I was careful not to show it.

I said, calmly "I regret I'm not one of those pure-bred English who are a mixture of Saxons, Danes, Celts, Angles, Jutes, Picts, Scots, Normans, Romans . . ."

The war was on again, and in a way I enjoyed it. The fool never once saw that I was only diverting the attack from Pettigree who couldn't stand up for himself.

But Pettigree saw, and was grateful. A little later, when it had blown over and Marley was back on his bunk scribbling away in the red-covered diary he kept, Pettigree drifted to my side as I stood gazing through a porthole at now distant Earth. He muttered thanks, and then exclaimed at what I was regarding.

It was still quite a sight. Earth was trying hard to look like a genuine Bonestell, green and cloud-flecked, and the Americas were obligingly turned our way. The sun forged the Pacific into a white-hot refulgent arc, like a paring of himself. We were then some 150,000 miles along the road from Earth, and the threat of weightlessness and indigestion was spoiling my day: for it was nearing time to cut power and coast awhile before braking the long fall to the Moon.

Pettigie became rapturous over the view. He started talking about the other planets, the stars in our galaxy, the millions of other galaxies containing millions of other stars and the incredible extent of wondrous forms of life which must, through the mere laws of chance, if nothing more, flourish in all quarters of the immense universe.

He really came alive and astonished me. I hadn't dreamed that his sense of wonder and curiosity was so vitally alive under that smother of inhibitions. Here was the force that had driven him on all those expeditions to uncomfortable and perilous places on Earth—driven him in spite of his "nerves", his diffidence and physical weakness and the imagination he couldn't always control.

I began almost to like him and respect him. Marley's was the courage of a blundering egocentric. Pettigie's was easily crushed, but refused to die. He was always going down for a count of nine—and always rising again. After all, he could have wriggled out of this Government commitment if he'd chosen to. He was dead scared to come, but he came.

Dr. Thomson joined us casually. He grinned rather cynically, listening to Pettigie. Pettigie noticed the grin, faltered, and quickly dried up.

I asked: "What do you think, Thomson—is there other intelligent life in the universe?"

"'Other intelligent life?'?" he echoed. "I've yet to see any intelligent life anywhere."

"You take a poor view of humanity?"

Thomson shrugged. "It's just a freak of nature. No more significant than a film of mould growing on a rotten orange. Now we're beginning to spread to and contaminate the neighbouring oranges."

Pettigie said quietly: "You've made a special study of contagious diseases. Like most people, you tend to visualize life in terms of your own particular interest. To a playwright, all the world's a stage. To a poet life is a poem; to a composer, a sym-

phony. To a Marxist it's a class struggle; to a theologian it's a spiritual struggle. To adventurers it's an adventure."

Looking at Thomson I said: "And I should imagine that to practical jokers it's all one big hoax."

"All right," said Thomson, no longer quizzical, "let's face it. It *is* all pretty damn silly, isn't it? Tear all the masks and veils aside, and there remains just one law that isn't pretence or hypocrisy: kill or be killed—which is the law of the cancer cell. It all boils down to that. All the sweetness and light is fantasy, make-believe, a stupid game we play with each other to kid ourselves that life is more than it is."

Pettigue said: "I never heard of a cancer cell who built a cathedral like that at Chartres, or wrote *Hamlet* or a Ninth Symphony"

There was a moment's silence. Then Thomson said. "You believe life is something sacred?"

"In a way, yes," said Pettigue.

"I see." Thomson stared out of the port at faraway Earth. Without turning his head he remarked: "How's our mutual friend Thorneycroft these days, Pet?"

Pettigue's lower jaw dropped. He went distinctly pale. Then he turned without a word and, dull-eyed, stumbled to his bunk. He lay down with his back to us.

Thomson remained gazing out. He said, loudly enough for Pettigue to hear: "Nice view of South America, Captain. Must be rather odd for anyone who's been in that wilderness to see all the Gran Chaco in one glance like this. Ever been there, Captain?"

"No."

"A very strange place—where very strange things happen."

"Do you have to be cryptic?"

"Sometimes one must be," said Thomson, and went and got Marley's head out of *The Trail of '98* by beginning to talk sport with him. Marley was always ready to trade sporting reminiscences with the doctor. They usually centred on mountaineering, grouse-shooting, hunting, or, deer-stalking in the Highlands. Pettigue and I were always pointedly left out of such discussions, obviously being neither true sportsmen nor habitués of the right clubs. It seemed that only the best people were fitted to practise the technique of hounding, maiming, or killing in protracted ways rather lovely and quite inoffensive animals.

It was plain that this pair weren't much concerned with the sacredness of life.

Which brought me back to wondering why Thomson had tried to get Pettigue in some way about it. Who was Thorneycroft? What particular "very strange thing" had happened in the Gran Chaco? And I kept on wondering because I believed I really knew, if only I could remember. The names Pettigue, Thorneycroft, and the Gran Chaco were linked in some fashion at the back of my mind. Something I'd read somewhere? Something someone had told me?

I spent too much time wondering about it, for I was taken utterly by surprise when the HAPU shut itself off automatically and I started drifting away from the floor in the queasy state of "free fall".

Falling we were in fact now, towards the Moon. Annoyed because I'd meant to anticipate the robot and close down the HAPU myself, I set about wedging myself at my desk, fighting my nausea, and plotting the new descent line to the Mare Nubiam.

The mystery of Pettigue went clean out of my mind.

I was pretty proud of that landing. I'm quite sure that the automatic pilot would have made a mess of it. Radar altimeters are never satisfactory when it comes to small distances. No doubt the correct allowances for the Moon's lesser gravity were fed into the computer, but there were one or two imponderables and the Moon's atmosphere was one of them.

The backroom boys had counted on the resistance of a suspected heavy gas at .0001 of Earth's sea-level atmosphere density. And the atmosphere turned out to be pure hydrogen at only half that density. The robot instruments, in their false omniscience, would have switched off the jets when we were still maybe a hundred feet up. A dead fall from that height, even at the low lunar acceleration would have shaken things up badly and perhaps cracked the ship.

As it was, by courtesy of my fingers, we landed like thistle-down.

Burton's *Conquest of the Moon* gives a full enough description of that landing and there's small point to my repeating it here. This story is mainly concerned with what hasn't been told before: the true nature of the relationships between the four of us—Burton depicts us as cardboard cut-to-pattern heroes—and what befell us on the Moon.

Burton puts into my mouth an account of the landing which flatters my descriptive ability—looking at it again I notice two adjectives whose meaning I've had to seek in the dictionary—but far from flatters my navigation. According to the statements I never made, I put the ship down twenty miles from Bullialdus instead of the same distance from Copernicus, with which I'd blithely confused it. True, the two craters are of the same type, with terraced ramparts, and both are sizeable.

But I knew which was which and exactly what I was doing. I was keeping my promise to Marley.

It was little Pettigree who took a sample of the atmosphere and pronounced it to be hydrogen.

"Nonsense—it can't be," said Marley. "All light gases like that would have leaked away from the Moon long ago."

"Nevertheless, it's hydrogen," said Pettigree, sullenly.

I said: "I'm mighty glad to hear it. The master minds who planned this trip have left us damned short of propellant. I wouldn't like to say we had enough for the return trip. Now we can pump it straight into the liquefying plant. I had visions of us drilling for it or crushing rocks to extract it."

"I don't get it," said Marley. "It must be leaking off into space like mad all the time."

"No doubt," I said. "But I guess there's masses of it imprisoned under the crust, seeping up slowly through the cracks. It might still be being produced by volcanic action down there."

"I'm glad for another reason that it's there," said Dr Thomson. "It'll shield us from the bulk of the meteoric stuff."

But that, of course, had been anticipated. The observatory at the space-station had finally killed the theory that the Moon had no atmosphere at all. Even before that, the presence of ground mists and of a brief twilight at the cusps of the crescent Moon, and the total absence of any observed meteor strikes, had combined to shake the old belief.

It was I who reported by radio to Earth our successful landing. The leader of the expedition was much too busy dividing his time between scrambling into his spacesuit and peering out through a port at the Moon, wearing dark glasses against the strong glare of reflected sunlight that surrounded us.

I knew what he was looking for. When I'd finished my report, I told him: "You're looking in the wrong direction. It's



the other port. Anyhow, the ray is quite five miles away. You still won't see it."

He was at the other port before I'd finished speaking.

"Why not?" he grumbled.

I pointed to the horizon which looked so much nearer than it should be to our terrestrial eyes. "It's just over the skyline, I should think. You must remember that the Moon curves away a lot more steeply than Earth."

But still the old fool kept peeping out every half minute. I told him, winking at Thomson: "Relax. No one's going to run away with it."

He couldn't relax. He was first into his spacesuit, first into the airlock, through it and down the ladder. Thus also he was the first man to actually set foot on the Moon—and the last man to give that historic event a second thought, or even a first one: his mind was aflame with the idea of gold.

He went loping off in long bouncy strides while I was still barely emerging from the lock and Pettigie and Thomson were still in the cabin. He'd still got the direction wrong.

"Come back, you idiot" I yapped, and then remembered to switch on my radio and yap it again. No answer—he hadn't switched his on either, of course. Anyway, we hadn't yet netted.

Fifty yards away he fell down a fissure—not a deep one. I could see the bottom from my perch on the ladder. But it was narrow. He became wedged tight. I felt happier. I let him stay there, and climbed down carefully. I weighed only two stone, and my spacesuit about as much. It wasn't easy to co-ordinate one's movements. My foot kept missing the rungs. I could see how easy it was to fall down a fissure.

Presently, the other two came down. Pettigie fell the last six feet—I caught him easily. We stood there at the foot of the ship and peered at each other through the dark face-plates. We, at least, thought it an historic moment.

Then we got to work. We netted the sets. We examined the valves of the twin air cylinders we each carried on our backs, for on their proper working depended our lives. The valves were operated by twin cable controls looping forward over our shoulders. We checked all joints, all working parts.

Pettigie started chipping bits out of the rocky ground and stowing them in his specimen bag.

Thomson and I studied the bare scenery. It was as though we were standing on endless, dried up mud-flats, so wide that we couldn't even see the sea. Thomson must have got that impression too. His voice came gloomily through my earphones: "Which way is the pier?"

In the foreground Marley's round helmet bobbed about just above ground level. He was still trying to work his way out. I imagined the blasphemy exploding inside that ball of quartz and metal.

"Let him stew for a while," said Thomson, his vein of spiteful humour showing.

"Oh, let's get it over with," I said. "We shan't have any peace until he strikes gold."

So we hauled him out, checked his suit and set while he fretted petulantly, headed him in the right direction, and let him go on fooling himself he was leading us. I suppose he was living something like "The Trail of 1978" in his one-track imagination.

We trekked across the great rock desert. It was odd to see Earth hanging like an illumined Chinese lantern in the dark sky ahead and realize that nearly 3000 million people were crawling on it, while on the whole of this bleak world there were only just enough to play bridge. We weren't exactly crowded.

The peaks of Bullialdus rose slowly and distantly on one side. Presently Marley gave a shout that rattled my eardrums.

"Look!"

Stretched along the horizon ahead, under the glowing Earth, was a gleaming line like a white-hot wire. Undoubtedly, it was the Tycho streak. Despite my contempt for Marley's motives I began to feel some of his eagerness to investigate it. Even Pet-tigue began to quicken his pace.

As we neared it, the effect became spectacular. We were approaching the verge of a great frozen river of shining metal, so wide that we couldn't see the other side. The dazzle smote through our faceplates and made our eyes ache.

Naturally, Marley reached the edge first. To my astonishment, he knelt clumsily and then arose holding a sheet of the stuff in his metallic gloves. It was a perfect diamond shape, about a yard long. When I looked past him I perceived that the whole streak, so far as I could see, was composed of hundreds of thousands of exactly similar shapes, laid out neatly and slightly overlapping like roof tiles. They were of a light yellow substance, which certainly looked like gold.

Our little radio net hummed with vocal surprise.

Thomson said it was all damned queer, and I said: "Yes—reminds me of the first time I saw Fingal's Cave. It looks most unnatural, yet it can only be natural. Can you explain it, Pet?"

Pettigie mumbled something, of which I caught only the words "Seen similar crystalline formations before," and tried to take the sheet from Marley. But Marley wouldn't let go of it. He kept staring at his prize in fascination.

So we each picked up specimens for ourselves. The diamonds were metal, all right, all quite separate. They were as thin and flimsy as sheets of tin-foil, but more floppy—like wet cardboard. But they didn't lift up too easily. Each seemed reluctant to part from its neighbours. I thought at first they were a bit sticky, but Thomson said: "They seem to be slightly magnetized" and I felt that was probably the answer.

Between us we pulled out nearly a score of them and found that the layers were only three deep, and beneath them lay the level lunar rock-bed.

Marley became conscious of us again. "Further out, towards the middle, the layers probably run deeper, like a river," he said. "A river of gold! Didn't I say so all along?"

Pettigie said: "I don't think it's gold."

"Nor do I," said Thomson. "Gold can't be magnetized, can it?"

"Don't try to tell me I don't know gold when I see it," said Marley, with a calm that struck me as a bit forced.

"There's only one way to settle it—let's take it back for analysis," I said.

Marley was reluctant to leave what he termed the "gold-field"—he was impatient to explore its extent. But he was also impatient to prove to us that it *was* gold, and was ahead of us again all the way back to the ship. The return journey seemed somehow further than the outward one, perhaps because of the suits: they were cumbersome and tiring to walk in. I resolved that I should go for no more long walks on the Moon, and our very next job was to get the runabout fitted together.

Pettigie had rolled his diamond up into a limp scroll, but Marley carried his delicately like an open newspaper. Neither Thomson nor I had troubled to bring ours: there were plenty where they'd come from.

While Pettigie messed about with his acids and reagents in a corner of the ship's cabin, testing his crumpled diamond, I per-

suaded the other two to help me set up the runabout. It was an ingenious little car, composed of only thirty-two light parts, including the four wheels and four seats. Yet it was tough, too. I lowered the pieces in bundles from the airlock, and down on the ground Marley and Thompson sorted them and fitted them together with the simple clips.

The only really heavy thing was the electric battery which powered it. That held enough juice to run the thing at about ten miles per hour for fifteen hours.

We were just fitting the thin, high framework over the body preparatory to covering it with the transparent and flexible plasti-insulate hood, when Pettigue announced thickly over the radio: "I've made every kind of test. It isn't gold—it's a completely new element. But it's atomic weight isn't far off that of gold."

"You silly little ——!" Marley swore. "It *is* gold. You don't know your job."

This was a direct hit in Pettigue's most sensitive region. The only pride the small man had was in his expertise.

The worm turned, possessed by a cold rage. "Not only do I know my job, Colonel Marley, but I do it. I don't have to be carried on the backs of subordinates."

Then Marley really cut loose. He blared obscenity which might have been common in the sweating darkness of goldmines but certainly was not in the best of clubs. He threatened to "break" Pettigue when we returned to Earth. Pettigue went silent, whether from fear or inarticulate hate I didn't know.

Thomson grinned all through it, but I got fed up and put in my ten cents' worth: "Cut out the gutter language, Marley! What the hell does it matter whether it's gold or not? If it's a new element, to be found only on the Moon, then it's worth more on Earth than diamonds, let alone gold."

He was so gold-obsessed that this hadn't occurred to him. Now he subsided, grumbling, and thinking about it.

He was small help in completing the rigging of the runabout, but Pettigue came down and gave a hand.

When it was finished and all ready for us to climb in, another row broke out. Marley had thought all along we were going to head straight back to the "goldfield".

I said: "That can wait. We know the extent of the streak—it's on the map. Now we know the nature of it too. Our immediate orders were to prospect the Mare to the north-east

where the uranium may be."

"Who's running this show?" demanded Marley.

"The British Government," I said flatly.

Thomson chuckled, and Marley glowered at him.

"I represent the British Government," said Marley. "I order you to return to the goldfield."

I had the I-have-been-here-before feeling again.

"For myself, I'm heading north-east in the runabout," I said, and waited for the inevitable result.

It came. "You're under arrest! You've piloted your last ship, Verlaine."

"Let's try and be sensible for a moment," I said. "Suppose we take a vote on it. Who's coming with me?"

"I am," said Pettigue.

Thomson hesitated, and then said: "I am."

Marley rounded on Thomson with an "*Et tu, Brute*" expression, but more angry than hurt. "You rat! I expected it of Pettigue. But you!"

Thomson said: "Hells' bells, I'm not your shadow. I'd like to take a gander in the other direction. There might be a pub that way—who knows?"

They were still arguing when I climbed into the ship's cabin to prepare rations. I guessed we'd be away most of the allotted fifteen hours of running time, plus another hour or two of looking around, and we'd certainly get peckish. The childish row going on irritated me. I switched off my set and concentrated on preparing something tasty. I had no fear of Marley driving off. I had the battery key with me.

When I came out with the grub Marley was nearly a hundred yards away, walking alone towards his goldfield.

Once again I had to switch on and yell after him to come back. He didn't answer.

Pettigue was some twenty yards away, collecting more rock specimens and apparently oblivious to Marley. Thomson was leaning indolently against one of the shock-absorber legs of the ship, gazing after Marley.

"Now where's he gone, Thomson?"

"Back to the strike, I expect. He's washed his hands of us, Captain."

I cursed, and hurried down the ladder and after Marley, calling him ineffectually the while. I caught up with him about

three hundred yards from the ship. I had to veer round in front of him and bar his way to halt him.

"Look," I said, "we can't all go wandering about the Moon alone and in different directions. For heaven's sake let's try to preserve some unity."

"That was precisely what I was trying to do, Captain Ver-laine, but you disobeyed my orders."

"Only because you're disobeying *your* orders."

"What of it, Captain? Nelson did it often enough. It's the man on the spot who should decide, not people a quarter of a million miles away."

"I agree, to some extent. But what's the point of retracing old ground. We've too much other ground to explore and not enough time. The terminator is only four days away and we can't stay—"

"If you're not coming, then get out of my way, Captain."

"Okay, then, you old fool—on your way. But bear this in mind: once you're over that horizon you're out of contact with us. There's no Heaviside Layer here to bounce radio waves over horizons. So they'll follow the line of vision, out into space. If you fall down another fissure and yell for help, no one's going to hear you. Another thing: there's only about four hours' supply left in your air-cylinders. So keep an eye on your watch and start walking back *before* you've been out two hours, or you won't get back at all."

"Have you quite finished, Captain?"

The sarcastic reception of my advice stung me.

"Quite," I said, grimly, and without another word or glance started back to the ship.

When I got there and looked back, Marley was no more than a distant, dwindling blob of quicksilver on the rock plain.

I looked at Thomson, still reclining against the shock-absorber leg, and shrugged. He grinned. Subconsciously I noted that the metal diamond which Marley had leant against the pyramidal base of the leg next to that was no longer there. But it didn't occur to me to wonder what Marley had done with it. I also noted, more emphatically, that the shadow of the ship had distinctly lengthened since we had landed, and, however slowly, night was coming. And there was yet much to be done.

So I got us all cracking on loading the runabout with drills, picks, dynamite, and such prospecting gear, spare air cylinders

and so forth. A final check, and then the three of us climbed in, closing the air-tight double door behind us.

I let the pump outside fill the interior from the ship's reserve tanks, until the runabout's plastic sides were distended like those of a blown-up frog. It was only eight pounds per square inch—the plastic wouldn't stand more—but it provided reasonable comfort and we were able to take off these darned helmets. But we had to wear dark goggles because of the all-pervading glare.

When this pressure was reached, the pump turned itself off and disengaged its nozzle automatically. As we drove off, I switched on the compact plant which condensed the carbon dioxide from the air in the freezing exterior pipes passing under the floor, and returned the residue to us, clean, and warmed through the engine. A small tank of oxygen was handy for a pick-me-up any time we felt like one.

It was a dream-like drive. When we hit a bump we sailed through the near-vacuum for yards before landing springily. The plastic bubble gave an all-round view but slightly distorted it, adding a grotesque touch to the unearthly landscape.

Away from Marley, Pettigue opened up a bit and talked geology at us — about the nature of igneous, sedimentary, and metamorphic rocks. The rocks around us, it seemed, were almost wholly igneous, crystallized from the original magma—the stuff which had been molten when the Moon was young, millions of years ago.

He kept harping back to the new element, which Thomson had jokingly called "Marlionium"—the name has since become official—and hoping that we should discover even further new elements. And he supplied good reasons for the Moon's composition being quite a lot different from Earth's.

As the runabout's airlock was so primitive—it meant losing the volume of air between the double doors every time a person got out—only Pettigue dismounted to do the actual scratching around in any area he thought looked promising. Most times it amounted to no more than that. Once, however, he struck silver, and we all had to get out and do a deal of drilling and some blasting to uncover the vein. It was rich. When we were back in the runabout with our specimens, Pettigue became, for him, quite animated, and treated himself to a new wafer of gum.

"Richest vein I've seen since Panyurami, in Bolivia," he said.

His own remark seemed to remind him of something and he shut up. It reminded me of something, too—perhaps the same

thing: Thomson's references to the Gran Chaco and someone named Thorneycroft. I did some prospecting myself, in my own memory, digging for the associations. Still they eluded me.

So at the next stop, when Pettigue was safely out and poking about some way off, I made sure our mikes were dead and then asked Thomson point-blank what he'd been hinting at.

"Thorneycroft?" he repeated. His blue eyes went hard. "Jack Thorneycroft was a pal of mine from our student days. He was the M.O. on the Curtis Expedition in the Gran Chaco. Pettigue was on that, too—it was the same lark we're on now: uranium-chasing. Curtis and another fellow named Long were killed: only Thorneycroft and Pettigue returned."

Now my perverse memory began to yield facts in plenty about the ill-fated venture.

"Of course, I read all about it," I said. "But I don't recall any particular mystery."

"The mystery is how Curtis and Long were killed."

"Poisoned arrows, if I remember aright," I said.

"Oh, yes—Indian arrows. But Jack told me they never found a trace of a single Indian in that region, and he believed that the nearest Indians were at least two hundred miles away."

I stared at him. "Foul play?"

Thomson shrugged. "Might have been a renegade, which was Pettigue's theory. But Jack thought it pretty queer. Maybe he was prejudiced. He reminded me that some years before, in Alaska, Pettigue was the sole survivor of another expedition. His story then was that the rest of the party had been wiped out by an avalanche."

For no conscious reason a cold tremor passed down my back.

"Pet must have nine lives," I said.

"Certainly his companions hadn't," said Thomson bleakly. "You might call him lucky. Or you might call him a Jonah."

He said no more, but his expression added wordlessly: "Or you might call him a murderer."

The silence was ended by Pettigue's voice squeaking from the helmets resting on our knees: "This is it, I think! Come and see."

It was it. Uranium ore in abundance. The details of that find are all in Burton. The find which Burton didn't record in detail was the one we made when we reached the ship again, after the great circular tour which had lasted seventeen and a half hours.

Thomson was doing the driving shift, and I was half dozing.



Pettigue was sitting behind us. I'd been thinking about him, on and off, as we bowled along. A murderer? He looked to be at the opposite pole from such a type. But so did little Dr Crippen. However, I thought the truth was that Pettigue was just unlucky with his expeditions. Most unhappy people were unlucky, I'd noticed, even if they weren't unhappy because they were unlucky. Coincidence had been rather hard on poor Pet.

I was quite happy myself. Despite the rather jangled relationships of its members the expedition as a whole was going smoothly enough. The landing had been a pip, there had been no cribs from Earth, Marley had made his strike and we'd made ours, and I was pleased about the sheer gift of unlimited hydrogen.

When you start congratulating yourself on your good fortune—look out.

Thomson exclaimed aloud and startled me out of my reverie.

The *Endeavour* was already towering over us. Fifty yards beyond it Marley—it could only have been he—lay on his back.

I stopped being happy. Marley looked much too still: it was scarcely the spot to pick for a snooze. We drove across to him. His shark's grin showed through his face-plate, the distorting plastic windows of our vehicle giving it an extra ugly twist. His eyes were open, but they held no more expression than Pettigue's.

I clapped my helmet on, pushed past the staring Pettigue, and let myself out. A close look at Marley's face told me he'd been suffocated and was almost certainly beyond aid. Nevertheless, I had to try. Through the radio I told Thomson to turn the oxygen on at full flow, to make the runabout a sort of oxygen tent. Then I dragged Marley through the lock into it.

We got his helmet off. His face was blue and stone cold. All the oxygen on Earth wouldn't help now.

We sat and regarded one another over his body.

"Marley was dead—as dead as a doornail," quoted Thomson, softly. He plainly felt no grief. To be honest, neither did I. I recalled the blustering Marley spurning the warning I'd given him. Now he'd paid for it: spent too much time at the gold-field and just failed to make the ship again. He'd lost out by so little that it hardly seemed fair. I wondered how far he had crawled at the last gasp. He was tough, so probably it was a long-drawn struggle.

I sighed. "Well, he made his strike even if he didn't live to register the claim."

Pettigüe remained expressionless. Thomson said: "Yes . . I suppose we'd better bury him here on the Moon?"

"He'd have preferred it, I expect," I said. "It's a distinction, the first man to be buried on the Moon. Anyway, let's face it: we can't take him back with us."

Pettigüe looked at the round-eyed grinning blue face and shivered slightly. He said, stammeringly: "I wouldn't like that in the cabin with us."

Thomson suggested a callous alternative that I shan't repeat. It was too cold-blooded to be humour.

There was no sense in sweating to carve a grave in that adamant plain. The shallow fissure in which Marley had fallen as his first misadventure on the Moon was right alongside us. His last misadventure was to lay him in it permanently. We carried him to the brink, and as we set him down a sudden golden glint at his back caught my eye. Curiously, I turned him a little farther over.

Wrapped tightly around the valve-cock on one of his air-cylinders was a thin crumpled scarf of Marlionium. It had jammed the cock so that it wouldn't open however hard one pressed the cable control.

Wonderingly, I unravelled it, as the other two watched. I could straighten it out only partially, but that was enough to reveal its original flat diamond shape.

I examined the cylinder it had been crushed around. The indicator showed that the cylinder still contained air at maximum pressure.

I looked hard at Thomson and Pettigüe. I saw from their faces that I didn't have to explain that Marley had died because of this thing.

"Either of you know anything about this?" I asked.

They shook their heads, still dumb.

"I might as well tell you I'm going to get to the bottom of it," I said.

"No use looking at me," said Thomson. "It's a complete mystery to me." He looked at Pettigüe. "Pet, here, has been mixed up with a couple of mysteries like this before. Perhaps he's got some ideas. A renegade Selenite maybe, eh, Pet?"

His sarcastic implication was clear enough.

Pettigüe looked helpless.

"Pettigüe," I said, "regarding that piece of Marlionium you

brought back—how much of it was left when you'd finished messing about with it?"

"N-not a quarter."

"H'm. This piece seems to be pretty well whole. It must be the diamond Marley brought back."

As one, we all looked towards the ship. The shock-absorber leg, against which Marley had leant his diamond, now threw a deep shadow. I peered hard into it. There was no doubt that the diamond was no longer there.

"It's gone!" I forgot which of them made the obvious comment.

"Yes," I said. "And now I remember noticing that it had gone before we started out. And probably before Marley started out. Now, Marley couldn't have wrapped it around his own cylinder: the poor blighter couldn't even reach it to take it off."

A silence. "I swear to you I know nothing about it," said Pettigue, presently, in a weak, empty voice.

"But you hated him, didn't you?" I said.

"I—I must admit I did."

"Did you also hate Curtis and Long and the Alaskan party?"

My shock tactics brought only a near-tearful response: "That's unfair!"

"If it interests you, Captain," said Thomson, evenly, "I had no love for Marley, either. I object to being called a rat."

"I see. I wonder if in retaliation you played him one of your damn silly jokes—and it turned out to be anything but a joke?"

He gave me the ghost of a grin. "Do you?"

"When I came down from the cabin," I said, "you happened to be leaning against the leg next to the one where the diamond had been. You didn't see what happened to it?"

"No"

"Odd. You were watching Marley walk off."

"In point of fact," said Thomson, "I didn't know Marley *had* walked off until you yelled after him. Let's get down to brass tacks, Cap. Of the three of us you had the strongest motive for killing Marley. He told you you'd piloted your last ship. You know he had enough pull to ensure that, too. We've seen how strongly you feel about piloting. Another thing: you were the last to speak to him—too far away for us to see just what you might have done to him. You could easily have had that bit of

Marlionium concealed in your fist—”

“That’s enough!” I said, harshly. “You’re talking nonsense.”

“So have you been,” said Thomson, calmly.

For the time being it was an impasse.

“We’ll go into it again later,” I said. I looked down at Marley. “Let’s get this over with.”

Silently, we lowered Marley’s body to the bottom of the fissure. Convention forbade us to leave it at that. A burial should be a burial. There were plenty of loose chunks of rock lying around and we began gathering them to fill in the grave. In the course of this it struck me that, as Captain, another depressing job was mine: I should read the burial service—something I’d never had to do before.

I muttered something and went back to the ship’s cabin to look for the Prayer Book. The other two continued rock gathering. As I searched, I heard them through the earphones.

Thomson said: “You did do it, didn’t you, Pet?”

“Leave me alone!” wailed Pet.

Thomson pressed on sadistically: “Perhaps you don’t know Jack Thorneycroft is a pal of mine. He told me the inside story of the Curtis Expedition. Indians—what a laugh! I’m afraid it’s going to look bad at the inquiry, Pet. I’ll tell you now I’m going to see that Jack is there—”

There was a sudden bang. Then silence. I paused, listening, waiting.

Then: “What’s going on down there?” I demanded.

No answer. But I could hear heavy breathing.

I hurried to a port-hole, peered out. I could just see one of the two metal-clad figures lying prone, while the other bent over it doing something to the fallen one’s head.

“What are you doing?” I snapped, not knowing who I was addressing.

“You’d better come down, Captain,” said Pettigue’s voice, wearily. “Thomson’s dead.”

I did some heavy breathing myself. I felt again that cold tremor playing along my spine. I’d knocked around in a deal of rough company in my time, but it so happened that I’d never met a murderer before. Now it was apparent to me that I shared this dead world with a homicidal maniac, who struck swiftly and unexpectedly.

But something was on my side that hadn’t aided the previous

victims. I at least was on my guard—I knew my life was in danger and from whom. Again, Pettigie was only a shrimp of a man—I could hold him down with one hand.

It only remained to set that hand on him.

Naturally, we'd brought no fire-arms with us. We'd expected to find no life on the Moon, hostile or otherwise.

I must tread carefully.

I went through the air-lock and climbed down the ship's side. At the bottom of the ladder I took a deep breath, then walked over.

Pettigie was standing over Thomson's body.

"What happened?" I said quietly, almost gently. My plan was to humour him until I got him back in the cabin.

He pointed wordlessly at Thomson's face-plate. It had been smashed in by a heavy impact. Shards of quartz glinted in the sunlight. The hole was so large that the air must have squirted out in one great jet. Thomson had suffocated, like Marley—but far, far quicker.

Covertly, I looked around. We hadn't unloaded any of the heavy implements from the runabout and none were visible now. But it all seemed obvious enough. They'd been tossing heavy chunks of rock into the fissure, and Pettigie had one of them in his hand when Thomson goaded him into a murderous frenzy of hate and fear.

Pettigie said dully: "We were just standing here talking—" ("Talking!" I thought.)

"—when, suddenly, something shot down out of the sun and crashed into his face-plate. I scarcely glimpsed it. A meteorite—must have been.

"I see. Any idea how big it was?"

"Not really. Perhaps two or three feet across. It went so fast. I tried to plug the hole with my hands. Too late."

"Must have been heavy," I said, and made another quick, surreptitious survey. Some of the heavier meteorites no doubt penetrated the thin hydrogen envelope occasionally. If one had struck here, it, or the pieces of it, should be lying around. But I could see no trace of meteoric material.

"You don't believe me," said Pettigie, suddenly.

"Why, of course I do," I said. "Why shouldn't—"

"You overheard what Thomson was saying to me?"

"Oh, don't let that worry you. He was only ribbing you in his peculiar way."

"It was odd, don't you think, Captain, that he was struck down at that particular moment?"

"Just a coincidence," I said, easily, keeping myself facing him squarely, my hands ready.

"Just a coincidence!" he repeated, bitterly. "One coincidence too many for any jury on Earth to acquit me—after all the other coincidences." He sighed. "I don't know, Captain, why I've been singled out by coincidence for a sort of plaything, but I'm getting mighty tired of it. This time I'm going to fight back. You're no fool—you think I smashed in that plate with a rock."

I began to protest, but he cut in: "What else could you think? Will you please fetch Marley's helmet from the runabout? It's all right—it's no trick. You don't have to turn your back on me. I'll walk in front of you."

"Do we have to proceed further with this?"

He said, pleadingly: "Give me a chance to clear myself, Captain."

He looked and sounded sane enough. Maybe that was his most dangerous quality.

"Okay," I said cautiously. And I remained cautious while we got Marley's helmet. He set it carefully on the ground. Then he picked up a sizeable piece of rock (I was on my toes, ready to dodge) and hurled it with all his might at the face-plate of the empty helmet. It bounced off without doing any damage.

"Would you like to try?—you're stronger than I," said Pettigie.

I tried, several times, with even bigger rocks. Of course, they weighed but a fraction of terrestrial rocks of that size—something I'd stupidly overlooked. And the quartz face-plates were a lot tougher than I had imagined. I couldn't even crack Marley's one.

"You might be able to do it with the sledge-hammer that's in the runabout," said Pettigie. "But you know that everything happened too quickly for me to get that out."

"I *don't* know," I said, puzzled. "I don't know what you two were up to here."

He observed, acutely: "It's nice, anyway, to see you have stopped humouring me."

I let it ride. I would have to do some more thinking about this. Meantime, there was another corpse to inter.

Marley's resting place became a double grave: Pet-

tigue helped me to make it so. I kept a wary eye on him, but now I wasn't so scared of thrown rocks.

My conscience still niggled me about the service, now doubly required. It also worried me that I didn't feel particularly grieved at Thomson's abrupt and shocking end. I was sorry, of course, but he'd turned out to be so different from my first impression of him at Harwell.

I recalled my advice to Zignawitch at that time: "Never go by outward appearances."

In the heart of Thomson there had been something rotten. There had dwelt spite, callousness, cruelty, and a basic insincerity. But perhaps I was being unduly hard on his memory because he had so disappointed me. *Anyway, requiescat in pace.*

When we'd finished our labour, I told Pettigie that we must report the deaths to Earth. I said "we" to imply that he was to come with me. He raised no objection.

And then, back in the cabin, I shirked the report. There would be requests for explanations that I couldn't supply. So I procrastinated, using as a flimsy excuse to myself that I must locate that Prayer Book. I poked around desultorily, while Pettigie sat dejectedly on his bunk. Presently, quite idly, he picked up one of the air-cylinders stacked in the cubby-hole beside him.

Then, suddenly, he became taut and investigated the other cylinders.

"What's bitten you?" I asked.

He turned. "I thought none of us had used any of these spares?"

I was surprised. "No, no one has yet. But if we go out again, we'd beter use new ones."

"Two of these are empty."

"What's that?" I checked. He was right.

"You didn't use them, nor Thomson, nor I—we know that," he said, with unusual excitement. "It must have been Marley. Don't you see? While we were away all that time he must have exhausted his first two cylinders and come back to change them—these are the empties. Then he went out again, and it was one of the replacements that got jammed up. And we were all miles away at the time."

I pondered. "I see what you mean," I said, presently. But I kept quiet about the explanation that had occurred to me. When he'd been analysing the Marlionium, Pettigie had been alone in

this cabin for quite a while—long enough to have emptied both those cylinders.

Whoever had caused Marley's death had planned it most carefully, with a deal of foresight—enough foresight to plan an alibi also. And Pettigue was an intelligent man—or was the word "cunning"? Maniacal cunning.

I resumed looking for the Prayer Book. Pettigue seemed disappointed by my negative reaction, and sat fingering his chin nervously.

My mind was a whirl as I shifted papers and notebooks about. *Were* we alone on the Moon? There were other not too friendly nations interested in this place. Secretive, inscrutable people, some of them. Had they reached the Moon before us? Were they jealously defending it against intruders, using inexplicable hit and run methods to avoid an open incident?

Was Pettigue their agent? Had he similarly sabotaged those other two uranium-seeking expeditions?

Or was it simpler than that—did he have mental blackouts in which he attacked those who had hurt his queer, sensitive nature?

Without thinking, I'd progressed to searching through Marley's documents—the sight of his red-covered diary awakened me to my toes. It was "On the Moon."

Now, Marley had quitted this cabin almost as soon as we landed, certainly not pausing to write up his diary. Just as certainly he did not enter it again at any time before we set off on our long prospecting trip.

Pettigue was right—Marley had returned here. When I read the amazing entry I realised that not only was Pettigue right, but also innocent, as we all were.

"Pettigue," I said, "I'm sorry. You're an unbelievably unlucky guy, but no more than that. I don't know what the devil we've walked into here, but it sounds pretty sticky. Listen to this—Marley wrote it yesterday."

I read out the entry. It was but a few abbreviated notes—probably Marley meant to expand them later. Therefore, it left us with plenty to guess about.

"March 20th, 1978.

"On the Moon.

"Landed today. STRUCK GOLD—rich. P. said not gold—fool. I rtn'd. to goldfield alone. Immense. Feeling of being watched. Had to rtn. to ship for more air-cylinders.





*Felt as if being followed. Kept looking behind me. Thought saw something once. Aft. 10 feet from ground. Vanished suddenly. Illusion?*

*"Others still away. Ship empty. Now have to change cylinders. Suit designed by an idiot—can't change cylinders while wearing it.*

*"Later. All set to explore further reaches of field. Anxious to go but still a bit uneasy. Thought saw something flash past porthole. Looked round carefully—all directions. Cld. see nothing unusual. But feel something unusual out there. Things having power to make themselves invisible. Wish I had the runabout. Will commandeer it when they rtn."*

That was all.

"He seems to have become a case of nerves," I added. "Bound to happen when one is utterly alone in weird and desolate places. What do you make of it?"

Pettigree thought for a moment. "I'm not so sure that it is all imagination. Sounds to me as if we may be under observation—and perhaps fire."

"From guided missiles?"

"Of some kind."

He went over to a port-hole and stared out. I looked to see if Marley had left any other relevant notes, but could discover none.

I heard Pettigree catch his breath. "There is something out there Captain," he said, and in a moment I was at his side. But in the same moment he said: "Can't see it now."

"What was it?"

"I don't know. Just a flash in the sky. Like a 'plane turning and catching the sunlight. It might have been a big thing a long way off or something small and near."

"Let me look."

I looked a long time, and then I also saw a sudden gleam, against the blackness of space, that came and went in a split second.

"I've a hunch this has something to do with the goldfield," I said. "I'm going over to have another look at it."

"I'll come with you," said Pettigree, with an effort. I saw from his paleness that to venture outside the ship was the last thing he wished to do.

"No you don't," I said promptly. "Someone has to take the ship back and make a proper report. I've a notion that what's going on around here isn't going to be material for a general

radio news bulletin. There's something mighty important at the bottom of it. If we discover what it is, it'll be up to the Government to decide how much can be spilled."

Pettigue was relieved to accept my orders. For the next few hours we prepared the ship for take-off. The main job was to pump in and liquefy enough hydrogen to top up the propellant tank. I kept assuring Pettigue he'd have no more trouble supposing he had to go it alone, for the automatic pilot would take care of everything. In the end I almost persuaded myself to believe it.

I added: "Don't worry—I'll be back anyway. I'm not falling for anything. I'm staying in that runabout all the time."

I didn't add that I couldn't see the runabout standing up to whatever had hit Thomson.

After I'd given Pettigue his final coaching, I threw in a parting grin—quite the little hero—and let myself out through the air-lock. Once shut outside, I felt anything but heroic. I was hefting a new battery, and it hampered me. I couldn't move half as fast as I should have liked to. I scrambled down the ladder and got to the runabout somehow. Only when I was inside, had changed the battery and was waiting for the air-pressure to rise, did I take a good look around.

And then I got a shock.

Like a flock of strange birds, a dozen or so gleaming shapes were hovering around in space above *Endeavour's* nose. They were all tilted at the same angle, presenting to me only a foreshortened view of their undersides. But it was enough to recognise them: they were some of the thin metal diamonds from the gold-field, moving slowly something like a hundred feet up.

"Pettigue," I said, through the radio, "take a good look out all round and tell me if you can see anything."

He soon reported that he could see nothing unusual—this echo from Marley's diary was disturbing.

"I thought not," I said, and told him what I could see. "They're manoeuvring to keep themselves edge on to both you and the sun, and that way they're too thin for you to see. Don't let 'em scare you—they're too flimsy to do any damage."

"Unless they collide with you from behind and get wrapped around your cylinder valve," said Pettigue meaningfully.

"I get you—that's what happened to Marley. The thing is, was it an accident or not?"

"Might be an accident that that one happened to hit just on

the valve. But it may have been trying, blindly, to attack him. Depends what motivates the things. Possibly there's a mind—or shall we say 'apprehension'?—of some kind behind them. They may be remotely controlled, or they may be sentient themselves."

"Sentient metal?" I queried.

"In a crude amoeba-like way—why not? Just because we have never encountered anything like it before?"

"I don't know enough to argue about it, Pet. We'll discuss it later."

The pump outside disconnected itself. I was free to go.

"I'm off," I said. "Keep indoors, and you'll be okay."

"Wait," he said. "There's no need for you to go now—we've found what killed Marley."

"Yes, but we haven't found what killed Thomson. That's what I'm after. 'Bye."

I removed my helmet, to breathe more freely. Then I drove off towards the goldfield. I kept a sharp look-out all ways and more than once spotted a transient gleam overhead. Apparently I was trailing my own private muster of metallic vultures. I felt flattered because Pettigue wasn't monopolising the attention.

When I got there the goldfield looked just as it had before. Only this time I had a new respect for it, and didn't go too near it. In the runabout I paralleled it for miles, wondering how far Marley had come along this strange shore.

It went on and on, changelessly. The diamonds looked like the scales of an enormous golden fish. The giant peaks of Bullialdus climbed the sky ahead. The monotony palled. I began to wonder what I was supposed to be looking for.

In the foothills of Bullialdus, I found it.

There the streak was carried at an angle of forty-five degrees along the slope of one range, sufficient to throw it in shadow. Shadows on the Moon are very black and very cold. What I saw I could discern only by the pale Earthlight, and it was the weirdest scene I ever expected to happen upon.

The diamonds were moving, drifting over one another like so many flat fish on the sea-bottom. Now and again some planed upwards, and glided about—blank, featureless pterodactyls. Or were they but leaves borne on an unknown wind? They no longer seemed floppy, but stiff. "Tea-trays in the sky" crossed my mind.

When any of them came near me, they seemed to vanish, and

I guessed they had frozen head on towards me, as a pointer dog freezes.

They didn't bother me. Then I looked at their mates on the ground and saw a phenomenon that bothered me plenty. I noticed, quite near, one diamond that was thicker than the others. Then I saw why. One after another, adjacent diamonds were sliding on top of it, covering its area exactly. One could almost imagine them sliding into place with a click. And each time, of course, they added their own slight thickness to it.

Fascinated, I watched it build up until it was nearly six inches thick.

I thought: "If *that* took off, it could make quite a dent in the old jalopy—and in me too."

At which moment it started to take off.

So did I. I sent the runabout bouncing back towards the ship, its throttle full open. At the same time I put my helmet back on—but quick. It didn't make me feel all that much safer. I'd seen what was left of Thomson's face-plate.

Full speed was about twelve miles an hour. And, according to Pettigue, the thing that hit Thomson travelled faster than the eye could follow. It was going to be Tortoise v. Hare—with, likely, an ending different from the fable.

I hadn't gone five hundred yards when it came diving at me. Just at that moment we broke out of the shadow into the glaring sunlight, and this seemed to put the chunk of flying Marlionium off its stroke. It went veering past at an odd angle, missing me by yards.

I divined that direct sunlight hampered it, and this cheered me somewhat. I'd noticed that the shapes had—apart from rare incredibly swift turns—doggedly kept themselves edge on towards the sun. Didn't they want the sun to see them either?

It was difficult to concentrate on that problem with my heart in my mouth.

The thing came at me again, this time right out of the sun. I didn't even glimpse it. It went like a bullet through the runabout's plastic bubble. There was a silent explosion as cubic yards of air sprang eagerly from their broken prison. They almost took me with them, but I clung grimly to the wheel, thanking my stars I'd got my helmet on.

I drove on, ever away from that frozen river of inexplicably deadly stuff. That, at least, I knew—but not where I was heading. For as I drove I was half-blinding myself, staring up through

my darkened face-plate at the sun, from whence I knew the next attack must come.

Therefore, this time, I had quite a second's warning. I glimpsed the thing as it came, black against the sun's disc and corona, and wrenched the wheel round instantly, near overturning the runabout.

The heavy diamond dove, arrow-point foremost, straight into the hard rock surface a couple of yards to my left. It would have speared me nicely but for my desperate evasive action.

As it was, it dug itself a hole and toppled on to its back, so to speak. Thus one diamond face was exposed to the fierce sunlight. The whole block remained perfectly still, as if it were paralysed.

I braked hard, and observed it from a little way off, cautiously. Rapidly it lost its hard, sharp outline, went a bit limp at the edges.

I scraped together my last reserve of courage and went and poked at it with a crowbar. It was merely a heap of loose, floppy diamond shapes, weak as wet cardboard.

The sun was my ally—I knew that now.

I lifted the heavy mass on to the back seats where it would continue to receive the full glare of the sun, and drove it back to the ship.

I contacted Pettigue as soon as the ship's nose began to show above the horizon. He'd had a quite uneventful time, so I told him about mine as I came rolling home.

The *Endeavour* looked something like a rookery, with the shapes still wheeling slowly about its crown. There were a lot more of them now, but I didn't stop to count them. I never thought I'd be glad to see Pettigue's sallow, doleful face, but this time I was. The cabin had the feel of a sanctuary.

But we had to quit it for a time to bring aboard the mass of Marlionium. We did it circumspectly, splitting it into sheets and crumpling them, keeping them facing the sun the while. We wanted no more mass movements. Actually, had we known more of the technique of handling the stuff we could have shifted it *en bloc* without any trouble.

We had got the last of it in and were finding a home for it when there was an almighty thump and the whole cabin shook. Something had slammed against the ship's hull like the hammer of Thor.

"Good grief, its mate's come to avenge it!" I said, foolishly.

Pettigie more sensibly banged shut the metal covers to the port-holes. As I helped him screw them tight, there came another smashing impact. The ship actually swayed. I thought for a moment it would topple.

As we came back on an even keel I motioned Pettigie on to his bunk and flung myself on to mine, next to the control panel. I'd checked everything before my lone trip and the ship was ready for take-off at a moment's notice.

We'd had notice. I pressed the firing button.

It was a lousy take-off. We came within an ace of crashing. Admittedly, I'd never before taken off from the Moon, nor had to rush a take-off. But, with the smooth-running HAPU, there should have been nothing much to it.

However much I tried to keep the ship on course, it kept yawing unpredictably.

"Something's very wrong," I told Pettigie. "My guess is that whatever hit us split one of the vents and we're getting a side-jet."

I went to one of the ports and worked the mechanism which lifted a mirror from its recess in the hull and held it an angle to give a view clear down the ship's side. Everything looked to be in order.

Pettigie had chosen a port on the opposite side, and in a moment I heard him gasp.

"I should have known it was that side," I said. "Is it bad?"

"Take a look," he said, in a strangled voice.

I did. It wasn't easy to see at first, because this was the side opposite the sun and therefore in intensely black shadow. But the light from the cabin angled from the mirror in a pale beam down the hull and shone on a foreign body sticking in that hull like a great arrow-head.

It was the twin of that Marlionium block which had nearly flattened me. It was wedged deeply in the rent it had made.

I came out in goose-pimples.

"Hell's bells—the tip of it must be within inches of the hydrogen tank!"

"And it's still probably working its way in," said Pettigie, trembling.

"No wonder we're getting pushed off course," I said. "Well, there's one way to settle its hash."

I went back to the controls and switched on the small side-jets, juggling one against the other until I'd worked the ship

round in a semi-circle about its longitudinal axis. That took the diamond into the direct blaze of the sun. The power went out of it completely—I could feel it—and the ship was under my complete control.

I had a shrewd idea where the second diamond had materialised from. It was an amalgam of all the thin shapes which had been gathering around the ship. They waited until they formed sufficient bulk.

Marlionium was hot stuff, but it could be handled. We spent a deal of time before our Earth landing (for an account of which see Burton) playing with our collection of it in the ship. Between us we came to these conclusions: —

As Schrodinger had pointed out, atomically there was very little difference between living matter and what is called non-living matter. In fact, there may be no such thing as completely non-living matter.

A single example: the structural change affecting metal, called “fatigue,” is basically the same as that which affects animal muscle.

As Pettigrew had originally suggested, Marlionium had a very primitive form of apprehension. It could sense the presence of alien metal—like the ship, like our space-suits—and merely by a reflex action try to push it out of its territory. The reflex was simpler even than the automatism of plants like the sundew or the Venus’ fly-trap. It had about as much conscious intent behind it as the frog’s leg which twitched when it touched an iron railing and inspired Galvani to discover and store electricity.

It detected a dissimilar kind of metal as a block across the lines of the electro-magnetic field of force which provided the Marlionium’s propulsive power. No doubt the field was, or was allied to, the gravitational field which surrounds every planet, small systems themselves moving in the far greater field of the sun.

All through the solar system these lines of force curve and interlace, in changing patterns—the invisible tides of space. We are still largely ignorant of their nature.

On Earth, at exhibitions, I’d seen aluminium plates moving apparently unsupported through the air, but actually being motivated by the fields of large electro-magnets. Marlionium had the unique quality of not only being activated by such fields, but also interacting with them. Its general direction of movement depended upon the angle at which it cut the lines of force, and this, once in motion, it could adjust.



But to hold an angle a thing must be rigid. A loose, floppy thing can only sag at many different angles. Marlionium was only rigid when it was frozen stiff in the sharp lunar shadows. But the full power of the sun on its exposed surfaces softened it into helplessness.

Therefore, the flying diamond shapes strove to keep edge-on to the sun as far as they could, for their edges were too thin to absorb enough heat to matter. The ground-reflected sunlight which showed their undersides from certain angles was mostly just weakened light: the lunar rock had absorbed the heat from it.

Not only rigidity, but an initial angle of about forty-five degrees seemed necessary for a shape to "take-off." That's why Tycho's rays for the most part stay where they are. Only rare portions are tilted by ground formation to the right slope. That's why, also, Marley's diamond took off while nobody happened to be watching it—Marley leant it against the pyramidal base of the shock-absorber leg, so providing the requisite angle. When the shadow of approaching night lengthened over it—presto!

How Tycho's rays were originally formed remains the mystery it always was. The splashes of a great meteorite of pure Marlionium, which dried out in that peculiar crust of scales? Maybe...

Pettigree had a theory (which I'd hate to believe) that the entire formation of rays is in fact a complete creature, like a metal star-fish. And that the whole might be more intelligent than the sum of its parts—just as a man is more than just a collection of flesh cells, even though each cell can be said to have its own life. That might explain why the stray diamonds never wander far from the main body.

There seems nothing else to stop them from skating off to Earth, or the other planets.

And that is an important fact. Taken in conjunction with the example of the way a small diamond block pushed the heavy *Endeavour* around in space it becomes a *very* important fact.

Marlionium will perpetually try to push other metal out of its way. If it is fastened to that other metal, it will perpetually push it. Recently Marlionium pushed a one-man spaceship five million miles beyond the Moon. I was the one man. At the moment I'm the only man on Earth with experience of handling the Marlionium-rudder ship in space.

Yesterday I gave a lecture about it to a selection of our country's leading scientists. Oh, yes, Zignawitch was there—he's

quite the big boy at Harwell now, just as Marley prophesied.

I watched his face all the time I was explaining why the HAPU was as obsolete as a horse-drawn cart, and how Marlionium next year would be mined on a big scale—in the flat safe areas, of course, and with mobile armoured shelters at hand.

After deliberately turning the knife in his wound, I drove it in right up to the hilt.

"The currents of space," I said, "are no more predictable than is the sea, and no more controllable than is the sun. There are storms and whirlpools, swells and calms. But a Marlionium rudder needs the co-operation of only two instruments to feel its way safely through them all. Two instruments for which no substitute can be found. Two instruments which will never become obsolete. *These.*"

And I held up my hands.

WILLIAM F. TEMPLE

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# SCIENTI FILM PREVIEWS

News and Advance Reviews for Science-Fiction Film Fans

From FORREST J. ACKERMAN

I wonder if *The Naked Jung'e* will get a "horror" rating in Gt. Britain? It is what might be termed, if not termed, the first sci-ants fiction film. Specialist George Pal has produced an off-beat human interest shocker with a spectacular climax unreeling the unusual. Adroitly and adultly enlarged from Carl Stephenson's suspenseful short in *Esquire*, "Leiningen vs the Ants," this technicolor melodrama builds up a battle of nerves between the male and female protagonists (Charlton Heston and Eleanor Parker) and ends with an unnerving battle of both against an imminent agonizing death. Invasion by insects! The locale is South America. In the formicable finale, director Byron Haskin (whose previous picture was *War of the Worlds*) graphically portrays a monster making King Kong a pigmy by comparison: a lava-like flow of 40 square miles of *soldados*—vicious, voracious soldier ants! Billions of biting, crawling, stinging horrors, an avalanche of annihilation that will live with the locust swarm in *The Good Earth* as one of the classic adrenalin-raisers.

Due to space-time limitations, a preview of *Project Moonbase* had to be omitted last issue. Unfortunately, the juxtaposition of the concluding remarks about it and the preceding paragraph concerning "*The Martian Chron-*

*icles*" made possible the false impression that the Bradbury picture was being harshly criticised before production. On the contrary, nothing but the best is expected from Ray's scripting of his own classic. And here is the review of "*Project Moonbase*": Co-scripted by Robert Heinlein and Jack Seaman, produced by Galaxy Productions. Locale: Earth, Moon and space. By 1970, Space Station 1 has been anchored in the sky and the American Space Force (which of course would have been the Royal Space Force, had the picture been produced in Britain) prepares to undertake the initial flight 'round our satellite. Chosen to attempt the dangerous mission are Col. Briteis (nicknamed "Bright-Eyes"), a beautiful and supposedly brainful brunet; Maj. Moore, copilot and previously acquainted with Bright-Eyes, resentful of her youthful authority; and "Dr. Wernher," a spy who has replaced the authentic astronaut. En route Luna, the doppelganger's deception is discovered and the enemy imposter and Maj. Moore fight. The rocket blasts are accidentally activated and the ship thrown off course, necessitating a forced landing on the moon. The rocket (the *R. S. Magellan*) tails down approximately 10 miles beyond the terminator and 125 miles behind the crater Grimaldi. A check reveals there is not

enough fuel to take off from the Moon, and it is impossible to contact Earth from this position. In an effort to set up a relay TV aerial on a lunar mountain and SOS Earth, Maj. Moore forces the unmasked spy to accompany him; the spy attempts to escape, and falls to his death. Moore succeeds in contacting the parent planet, is informed that under the circumstances the nature of the mission has been changed and he and Col. Briteis are recognized as having established Moon Base

1. Extra oxygen, food and equipment are soon sent to the stranded pair via a miniature auxiliary rocket. And, to conform to public opinion, a tele-marriage is performed for the Moon's transplanted Adam and Eve, Maj. Moore being elevated to Brigadier General in the bargain. Interplanetary congratulations are extended to Mr. and Mrs. Moore (the first two people to truly honeymoon) by the President of the United States—female. Production itself (running time 63 mins.) is unfortunately subjuvenile, not even up to the par of the poorest of S-F juvenovels. Noted Hollywood critic Milton Luban could not believe any motion picture so mediocre could deliberately be produced, conjectured that it must have been a plot on the part of television interests to sabotage movies. *Variety* opined the pic's single redeeming feature was the space station and technical effects, the product of one Jacque Fresco. Critic Spencer Strong, leaving the preview, capsuled his reaction to the picture: "Project Moon, Base."

Great things, on the other hand, are anticipated for GOG,

third in the Office of Scientific Investigation series (which began with *The Magnetic Monster*). Produced in three-dimension for wide-screen release, this appears to be a technicolor thriller with more scientific content per foot of film than anything since METROPOLIS. It abounds in inventions, devices, mechanisms, experiments and theories — it should, with 150 scientists of the Free World all working night and day to establish a space station before an Iron Curtain in the sky would turn day into a nightmare. Even the cybernetic cortex of Novac, the Nuclear Variable Automatic Computer, is commandeered for the all-important project. We see an anti-gravity simulation chamber, where human beings pre-experience conditions of diminishing weight and free fall, and a grav-plus lab where super-gravities are flesh-tested for human endurance. In the nega-thermal unit, animals are flash-frozen in refrigeration and re-animation experiments which may one day make possible long - distance inter - planetary flights for hibernating men in robot-controlled spaceships. In realistic miniature, we see how a city of 8 million souls could be wiped out in a moment by the coruscating concentration of solar rays from a mirror in space. We see an audio-engineer driven insane by brain - scrambling supersonic vibrations. We see a pair of automatons, Alpha and Beta, who become Gog and Magog — berserk, destroying devils. The advance stills from this production indicate that it will have the science fiction world a-gog!



## *Latest News of Fan Activities*

From WALTER A. WILLIS

You may remember that in the last NEBULA I mentioned there would be an election to choose a representative to be sent to the San Francisco Convention next September. Well, seven candidates have been duly nominated and the election is now raging in all its fury. The seven are Peter Campbell, Vincent Clarke, Walter Gillings, Derek Pickles, Michael Rosenblum, Tony Thorne and James White. Ballot forms and election literature can be obtained from me at 170 Upper Newtownards Road, Belfast. There's not much more I can tell you that wouldn't be out of date by the time this is published, but if you are interested please write. And, of course, all contributions will be thankfully received, however great. After all, it's not the thought behind them that counts so much as the money.

Now, forward to the fan-magazines:—

SPACE DIVERSIONS, No. 7. Editors Norman Shorrock, John Roles and David Gardner, 12a Rumford Place, Liverpool, 3. 1/- per copy. This 'bi-monthly' magazine, having been absent for something like six months, now breaks the news that it has gone irregular. To dry our tears, however, we're presented with almost a quarter ream of duplicating paper in the form of a large

family size Christmas number. The strain of giving birth to this mammoth issue seems unfortunately to have overcome the Christmas spirit, and to some this Christmas box will feel more like one on the ears. The Londoners will be particularly troubled by the North wind: a bitter blast about the last Convention is all they get for their trouble in organising it. All I can say is that the next one, at Manchester, had better be good. Other things in this Christmas stocking, apart from a Liverish-pudlian foot, include a Stapledonish 'History of Mars' by 'Anon' (an author who has written some excellent if old-fashioned poetry, but whom I never expected to see in a fan-mag) and a novelette by Dave Gardner which is good enough for a promag—in fact too good for some. There is also, thank goodness, the final instalment of a 'round robin' serial which has been round far too long. This poor little robin, like the one in the song, should have long ago been put out of its Missouri.

SPACE TIMES, No. 12. Eric Bently, 47 Alldis Street, Gt. Moor, Stockport, Cheshire. 6d. per copy. This 60 page Christmas issue still shows the aftereffects of a recent change in publishers, but most of it is worth a little eye-

strain. Most legible, and readable, is a little gem by that jewel personality Vincent Clarke, a brilliant and subtle satire called SCROOGE ON ICE which is pleasantly unexpected after the rather broad and simple humour of the Northern fans. Wickedly mimicking Dickens' 'Christmas Carol,' it describes how Scrooge, a fan about to abandon fandom for the fleshpots of professional writing, is shown the error of his ways by the ghosts of Fandom Past, Fandom Present—and the Fandom That May Be.

"Outside, a small boy was whistling 'Two Little Men On A Flying Saucer.' Glorious! Glorious!"

"Hey, boy! Do you know the all-night Post Office?"

"Yus, mate."

"What an intelligent boy!" said Scrooge. "He should grow up to be a fan. Go around there now, my little man, and tell them to send a messenger with some Postal Orders. Here, I'll give you a letter to take to them. Come back in five minutes and there's five shillings for you."

The boy was off like an A-bomb.

"I'll send for all the fanzines I've ever heard of," whispered Scrooge, rubbing his hands and splitting with a laugh. "And an extra big one . . . no, two, for my membership of the Supermancon and a contribution to the Transatlantic Fan Fund."

With a sweep of his hand he sent story manuscripts and rough drafts flying from his desk, and sat down at the typewriter. Perhaps he could put out a oneshot fanzine to send with the Postal Orders? Ideas were bubbling up inside him; supremely fannish ideas that weren't worth a light on the market. Whistling merrily he started typing away.

The piece is a notable example of a recent trend in fan writing, the humorous story which carries

a half-concealed, half-sincere message, in this case "What shall it profit a fan . . . ?" I'm sure that it's without any intention of pointing the moral that the editor runs in the same issue a humorous story by Arthur C. Clarke exhumed from a 1938 fan magazine. (Ah, what genius he had then!)

FISSION No. 1. Colin Parsons and G. M. Wingrove, 31 Benwood Court, Benhillwood Road, Sutton, Surrey, England. 9d. per copy. Lithographed. What are things coming to? It's always been a fine old tradition of amateur publishing that first issues are illegible, unreadable, and consist almost entirely of a long apologetic editorial. This one, however, is well produced and interesting, and the editorial consists of six succinct sentences. In fact, there's a blank space below it which must be one of the largest blank spaces to appear on purpose in a British fanmag since before the war. What's more there are hardly any misprints, though you might expect a few clerical errors from anyone named Parsons. The contents include an article by Ken Slater about the influence of Lee Hoffman and myself on British fandom, modestly overlooking his own far greater services; reviews of S. F. magazines published or reprinted in Britain; a fascinating article by Bryan Berry on the life (if you can call that living) of a free lance writer and several stories of varying merit by F. G. Rayer, H. J. Campbell, and the editor. I'm told that Asst. Editor Wingrove is soon leaving to publish his own magazine. Apparently the name FISSION was well chosen.



# Something to Read...

From KENNETH F. SLATER

## SHADOW ON THE HEARTH

By JUDITH MERRIL \*\*\*\*

(Sidgwick & Jackson), 9/6d.

I believe that an earlier reviewer of this book (it was published in 1950 in America) commented to the effect that Miss Merrill had brought science-fiction into the home. A very true statement, for this story has a far wider appeal than its strictly s-f content. It would, I think, be fair to call it a "Mrs. Miniver" of tomorrow.

Gladys Mitchell, a young housewife living in the Westchester area of New York, sees her two young daughters off to school and her husband off to his office, and then gets down to worrying whether she can manage all the laundry and still attend a luncheon party—happily, she finds she can't. Happily, because it is about 1.15 when the A-bombs hit New York and all the other city areas of the United States. From a quiet opening, which would fit any "light romantic" story, the reader is swept rapidly into the turmoil and anguish of a stricken nation, microcosmically represented by Mrs. Mitchell, her family, her neighbours, her servant . . . just ordinary people. No space conquerors, no heroic leaders, no swaggering bravado. Just the plain stupidity, heroism, pathos, kindness, of the ordinary people . . . they might be the people down your street.

There is excitement and action—Doc Levy, wanted by the Security forces as a "saboteur," is taken in by Mrs. Mitchell—and obtains a false identity when a gang attacks the house, and is repulsed. There is tension of all kinds—the tension of the radio reports, lists of casualties, damage, instructions; the tension when it is discovered that Ginny, the younger daughter, has radiation sickness; when the local squadman insists on visiting the cellar where Doc Levy is hiding. There is some humour, supplied mainly by the dry and caustic sensibility of Mrs. Mitchell's maid, Veda, another security suspect. There is emotion of all kinds in this work, and although it is primarily about a woman, the reader need have little fear of "that love stuff" which so many s-f enthusiasts decry. The emotions you will find here are in places hard and brutal, not softly sentimental.

## EARTH ABIDES

By George R. Stuart \*\*\*\*

(Science Fiction Book Club), 6/-

This book was received quite some time ago and regrettably limitations of space prevent a complete review. However, we would thoroughly recommend it to all our readers, sincere in the belief that it is a real "four-star" choice.



# GUIDED MISSIVES

## Letters to the Editor

DEAR ED: This isn't my first letter to an editor, but it is for overseas writing. I couldn't resist writing you after I received Nebula No. 5—I have all issues of your mag. so far and I'm quite surprised at your progress. E. C. Tubb is a great writer. His stories are always (as much as I've read) full of impact. You would do well to put out a Tubbish, with all stories by him. The other stories are also noteworthy, but I don't have time to discuss all. More power to the contents.

All columns are good, but covers are your weakest point. The only one I really liked was No. 3.

If you want, I shall send you a copy of my own mag., S-FANZINE. It is not the best, but it is mine.

Providing this gets printed, I want all fans reading it to write me. I love to correspond with other fans, and would like to get some contributions from over there for my fanmag.

SAMUEL JOHNSON,

ELIZABETH CITY, N.C.

*\* Very pleased to hear from you, Sam. I hope that plenty of British fans will drop you a line in the near future.*

DEAR ED: I hope you aren't against criticism for here it comes. You've got a good mag., perhaps the best in the U.K., but in each issue we (the readers) are informed that by paying sixpence

over the price of the other British mags we get the best authors in yours. Sorry, but I disagree with you there. On an analysis of your first five issues I come to the conclusion that most of your lead stories are by authors who also write for other British magazines as well as Nebula.

I suggest that you leave your mag. to the fans' judgment—they know what they want and if you've got it, they'll buy it.

I must admit that you have an excellent magazine and I shall continue to purchase it because I think it's good.

Just for good measure I might mention that "Freight" by E. C. Tubb is one of the best S-F tales I've ever read. I've just finished reading it for the third time.

KEN POTTS,

MELBOURNE, AUSTRALIA.

*\* You appear to be ignoring one or two rather vital factors, Ken. Firstly, because I pay more to my authors than any other British s-f editor, they can afford to spend a greater length of time in writing a story for me than they can for any other editor and consequently the finished story is of far greater quality (e.g. "Freight," etc.).*

*Another point is that various rival magazines contrive to get the "big name" authors on their contents pages merely by buying reprint rights (which are cheap) on stories which have already appeared elsewhere. "Big name" authors demand certain minimum*



*payment from a magazine which wants new stories and (judging from our line-up over the last five issues) they seem to be getting it from NEBULA.*

DEAR ED. — Congratulations! Until yesterday I was of the opinion that British science-fiction left much to be desired—not anymore!

I've just read numbers 4 and 5 of Nebula and am very pleasantly amazed. It proves that our S.F. writers can write a rattling good yarn after all. In 5 issues you've given British science-fiction the shot in the arm that it's been needing for a long time.

I do feel, though, that bi-monthly is too infrequent for such a good mag. as yours. How about a monthly issue? I appreciate the difficulties involved, but I'm sure you could do it. You'd have your readers' unanimous support.

Congratulations again on achieving, in a few short months, something that others have been trying to do for years.

Sincerely—and with heartiest wishes for your continued success

J. F. PERKINS.

London, E.12.

*\* Many thanks for all the nice things you say about NEBULA, Mr. Perkins. I'm glad to see that my magazine has made yet another convert for British science fiction. You can rest assured that we will hit a monthly schedule as soon as there is sufficient support to warrant it and, of course, that can only come from people like yourself introducing the magazine to new readers whenever possible. I'll look forward to your comments on future issues.*

## FANALYSIS

So that we may continue to give you the kind of story you like best, please complete the ballot form below. Number the stories in the order of your preference, your favourite first and so on. Mail the completed form to the publishers as soon as possible.

Divine Right	
Troubleshooter	
Projectionist	
Gorgon Planet	
Emancipation	
Cold Storage	
Pilot's Hands	

The result of the Poll on the stories in NEBULA No. 5 was as follows: —

### THE TROUBLEMAKER

E. C. Tubb 39.6%

### DESTINY IS MY ENEMY

William F. Temple 30.7%

### WAR'S GREAT ORGAN

J. T. McIntosh 20.0%

### ALPHABET SCOOP

Rose Rocklynne 8.9%

### SABINA

Forrest J. Ackerman .8%

Consequently, we are pleased to present E. C. TUBB with a Cash Prize of £5, for although his "Troublemaker" didn't quite obtain the prize-winning 40% of votes, we felt that such a near miss shouldn't go unrewarded.

NEBULA No. 9 will carry the result of the Poll on the stories in this issue.

DEAR SIR: I received your interesting magazine, NEBULA, today. And I found a picture which I took in America. (*Neb-*

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#### WANTED

WILL buy rare British fantasy books.—S. B. Myers, 204 Forest Ave., Ann Arbor, Michigan, U.S.A.

#### FANZINES

FOR a fanmag with a lively and independent slant send 8d. stamps to—Bentley, 47 Aldiss St., Stockport.

#### MISCELLANEOUS

SEEK the films which Forry reviews—in your own home. Glasgow and District only Nebula Box A.

THAT old sf book with which you have finished should now be on its way to the H. G. Wells Club to encourage the younger generation to read and enjoy sf. Contact A. Gregory, 3 School St., Wotton-under-Eaer, Nr. Bishop Auckland, Co. Durham.

*Concluded from page 2*

silly—will you take my word for it that they are not, but are all part of a pattern? Some of the questions may seem impertinent—but, like a doctor, a statistician has to know as many of the relevant factors as possible in order to make a *good* diagnosis. Finally, I want to emphasise the **STRICTLY CONFIDENTIAL** nature of this survey. As soon as the professional statistician who is conducting this survey has "coded" the answers you give, the form will be **DESTROYED**. Your confidence will be respected.

*ula 5, inside front cover—ED.).*

After I finish this letter I want to read Temple's story, because I once read his Four Sided Triangle, since then I like him very much.

I attended the 11th World S-F Convention in Philadelphia as a *visitor* from Japan. Forry Ackerman's generosity and sacrifice made it possible. I want to thank him again through your magazine. At the Convention I saw Mr. H. J. Campbell from your country. He is the most interesting English gentleman I ever met. I promised him that I will visit your country some day in the future, until then thanks and goodbye.

TETSU YANO,

KOBE, JAPAN.

*\* Glad you're enjoying NEBULA, Mr. Yano. I'm sure I can speak for British fandom as a whole when I say that we'll all look forward to seeing you in this country very soon.*

Many readers will remember a story called "Mr. Udell" by David S. Gardner, which appeared in NEBULA No. 3. This story was then printed by an American magazine, which has since decided, like a large number of its rivals, to bring out a British Reprint Edition.

It is thus possible that British readers, by buying U.S. Reprint Magazines, will pay twice to read the same stories—a practice hardly profitable in these purse-tightening times.

Of course, you can count on new stories in NEBULA . . .

*Peter Hamilton*

# "SPACE-TIMES" RESEARCH BUREAU SURVEY OF BRITISH FANDOM

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It would assist the analysis of the questionnaire if you would, when possible, answer the questions by deleting the inappropriate words.

## SECTION I. (BLOCK LETTERS PLEASE).

Name: Mr./Mrs./Miss \_\_\_\_\_

Address (Street) \_\_\_\_\_

Town \_\_\_\_\_ County \_\_\_\_\_

Age last birthday \_\_\_\_\_

## SECTION II. Please answer with great care.

1. Please state your occupation \_\_\_\_\_
2. Are you self-employed (e.g. Doctor, Author, etc.)? YES/NO.
3. If not self employed are you full-time gainfully employed? YES/NO.
4. If the answers to 2 and 3 are "NO," are you part-time employed? YES/NO.
5. If the answers to 2, 3 and 4 are "NO," are you a full-time student, or the like, fully occupied at studies, but not in receipt of salary/wages? YES/NO.

## SECTION III.

Please show against the following items the number read in THREE MONTHS. There are two columns, headed "BOUGHT" and "BORROWED"; please insert the appropriate numbers in each. Material obtained from pen-pals or swaps is classified as *bought*, books, etc., from a lending library, free or otherwise, are "borrowed." "SF" covers both Science-Fiction and Fantasy.

	Bought	Borrowed
British professional SF Magazines (exclude British Reprints) _____	_____	_____
American professional SF Magazines (exclude British Reprints) _____	_____	_____
British Reprints of American SF Magazines _____	_____	_____
British Amateur SF Magazines (Fanzines) _____	_____	_____
Amateur SF Magazines not published in Britain _____	_____	_____
American Hard-cover SF Books (exclude British Editions)	_____	_____
British Hard-cover SF Books (exclude reprints of American SF)	_____	_____
Hard-cover British Reprints of American SF _____	_____	_____
Paper-back British Reprints of American SF _____	_____	_____
Paper-back American SF Novels (not reprints) _____	_____	_____
Hard-cover fiction other than SF (origin immaterial) _____	_____	_____
Paper-back fiction other than SF (origin immaterial) _____	_____	_____
Non-fiction books of all types: (a) Technical _____	_____	_____
(b) Non-technical _____	_____	_____
Technical magazines _____	_____	_____
Non-technical magazines _____	_____	_____
Please state how many of the following are included above:		
Detective Stories _____	_____	_____
Love Stories (Romances) _____	_____	_____
Westerns _____	_____	_____

- Are you a member of: (a) an SF Lending Library? YES/NO.  
 (b) an SF Book Club? YES/NO.  
 (c) a Lending Library other than SF (e.g. Municipal)? YES/NO.  
 (d) a Book Club other than SF? YES/NO.

For how many years have you been a reader of Science-Fiction/Fantasy? \_\_\_\_\_

Of how many Fan-clubs (SF variety only) are you a member? \_\_\_\_\_

Please insert against the following British SF Magazines your opinion of their order of merit—indicate by placing 1, 2, 3, 4 and 5 against the names:—

AUTHENTIC _____	SCIENCE-FANTASY _____
NEBULA _____	VARGO STATTON _____
NEW WORLDS _____	

Please insert a tick against any of the following of which you are a REGULAR READER. You will see that for the American mags. there are two boxes, one for the US Edition and one for the British Edition. Please put your tick to show which edition you normally read. If you normally borrow the magazine, tick the third column also.

Magazine	U.S. Edition	British Ed.	If Borrowed Tick Here Also
AMERICAN			
Amazing _____	_____	_____	_____
Astounding _____	_____	_____	_____
Beyond _____	_____	_____	_____
Fantastic _____	_____	_____	_____

# " SPACE-TIMES " RESEARCH BUREAU—SURVEY OF BRITISH FANDOM.

Galaxy	—	—	—	—	—	—	—
If	—	—	—	—	—	—	—
Imagination	—	—	—	—	—	—	—
Magazine of Fantasy & SF	—	—	—	—	—	—	—
Planet Stories	—	—	—	—	—	—	—
Startling	—	—	—	—	—	—	—
Super Science	—	—	—	—	—	—	—
Thrilling Wonder	—	—	—	—	—	—	—
Weird Tales	—	—	—	—	—	—	—
Space	—	—	—	—	—	—	—
Any other American SF Magazines	—	—	—	—	—	—	—
BRITISH	—	—	—	—	—	—	—
Authentic	—	—	—	—	—	—	—
Nebula	—	—	—	—	—	—	—
New Worlds	—	—	—	—	—	—	—
Science-Fantasy	—	—	—	—	—	—	—
Vargo Statten Magazine	—	—	—	—	—	—	—

Please mark with an X the magazine which you prefer most of those listed above.

## SECTION IV. SPACE TRAVEL.

First of all, do you think Man will ever travel in Space? YES/NO.

If you do, when in your opinion will the first space-travel happen: in ten/twenty/thirty/fifty/100/more than 100 years time?

Do you think Flying Saucers are from another planet or solar system?

YES/NO/DON'T KNOW.

If YES, where do you think they come from? \_\_\_\_\_

## SECTION V. EDUCATIONAL BACKGROUND.

Do you have any degrees/diplomas/etc.? Please name them \_\_\_\_\_

Are you obtaining, or have you obtained, "further education" (e.g. Night School, Tech. College, University, etc.)? YES/NO.

## SECTION VI. SOCIAL SURVEY.

Do you smoke? YES/NO. Do you drink intoxicants? YES/NO.

What is your favourite drink?

How many times a month do you go to the cinema?

If not married or engaged, have you one particular friend of the opposite sex. YES/NO.

Do you correspond with other SF readers: Regularly YES/NO. How many? Irregularly YES/NO. How many?

Do you live: with parents/with spouse/with spouse and parents (in-law)/alone/sharing an apartment with friend(s)/otherwise?

Are you: married/single/widow(er)/divorced/engaged/care free?

Do you "do the Pools"? YES/NO. Do you own: a car/a motor-cycle/your own house?

Have you a TV set? YES/NO.

Have you ever had work, other than a letter to the editor, published in any of the following forms: (not necessarily Science-Fiction).

An Amateur magazine. YES/NO.

A Professional magazine. YES/NO.

In book form. YES/NO.

Have you ever bought a lucky charm for yourself? YES/NO.

Specifically, have you ever bought a "Joan the Wad"? YES/NO.

Have you any hobbies other than SF? Please list below in order of importance to yourself: \_\_\_\_\_

Please place a tick against any of the following of which you are a member:

Operation Fantast	_____	Newlands SF	_____
NWSFC	_____	Junior Fanatics	_____
Medway Group	_____	Cardiff Group	_____
Liverpool SF Society	_____	London Circle	_____
Leeds SF Society	_____	Nebula SF Club	_____
Bradford Group	_____	British Interplanetary Society	_____
West Country Group	_____		

Signature \_\_\_\_\_

Please remember that this is a confidential document: after your replies have been "coded" for analysis the questionnaire itself will be destroyed. The survey is being carried out by a professional statistician, who will not reveal your answers to any other person whatsoever.

Please mail the completed questionnaire to:—

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